Pioneer sound.vision.soul

Service Manual

ORDER NO.
ARP3095

PROJECTION MONITOR RECEIVER

PRO-720HD
PRO-620HD
PRO-520HD

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model			Power Requirement	Remarks
	PRO-720HD	PRO-620HD	PRO-520HD		
KUXC/CA	○	○	○	AC120V	

CONTENTS

1. SAFETY INFORMATION ····· 2
2. EXPLODED VIEWS AND PARTS LIST ····· 6
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM ··· 22
4. PCB CONNECTION DIAGRAM ····· 112
5. PCB PARTS LIST ····· 168

PIONEER CORPORATION 4-1, Meguro 1-chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS (USA) INC. P.O. Box 1760, Long Beach, CA 90801-1760, U.S.A.
PIONEER EUROPE NV Haven 1087, Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE. LTD. 253 Alexandra Road, #04-01, Singapore 159936

©PIONEER CORPORATION 2001

T – ZZY SEPT. 2001 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

NOTICE
(FOR CANADIAN MODEL ONLY)
Fuse symbols (fast operating fuse) and/or (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE
(POUR MODÈLE CANADIEN SEULEMENT)
Les symboles de fusible (fusible de type rapide) et/ou (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

1.1 SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis or picture tube.

The following precautions should be observed :

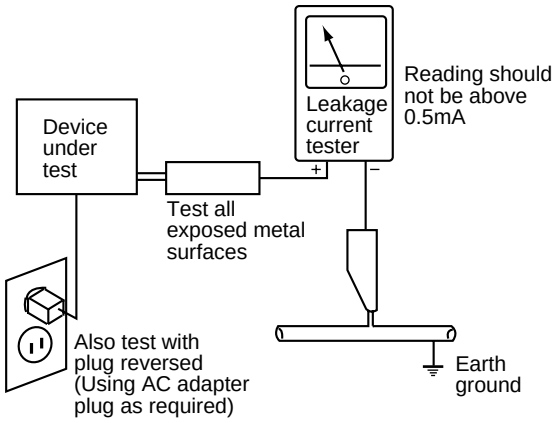
1. Do not install, remove, or handle the picture tube in any manner unless shatterproof goggles are worn.
   People not so equipped should be kept away while picture tubes are handled.
   Keep picture tube away from the while handling.
2. When service is required, even though the HDTV PROJECTION MONITOR an isolation transformer should be inserted between power line and the set in safety before any service is performed.
3. When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
4. When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
5. Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's.
   Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
6. Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing.
   Therefore, the following checks should be performed for the continued protection of the customer and service technician.

Leakage Current Cold Check

With the AC plug removed from the 120V AC 60Hz source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis should have a minimum resistor reading of 0.3MΩ and a maximum resistor reading of 5MΩ. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into a 120V AC 60Hz outlet (do not use an isolation transformer for this check). Turn the AC power switch on.
Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.


Reading should not be above 0.5mA
Leakage current tester
+
–
Device under test
Test all exposed metal surfaces
Also test with plug reversed (Using AC adapter plug as required)
Earth ground

AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

High Voltage

This set is provided with a X-ray protection for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this X-ray protection may correctly be operated.

Serviceman Warning

In the status of the black picture (video muting is being applied) when no signal is input, high voltage of this set during operation is less than 30.5kV. In case any component having some relation to the high voltage is replaced, confirm that the high voltage is lower than 30.5kV in the status of the black picture when no signal is input.
To measure H. V. use a high impedance H. V. meter.
Connect (–) to earth and (+) to the FBT anode cable connector. (Refer to section "7.1.2 DISASSEMBLY".)

X-radiation

TUBE : The primary source of X-radiation in this set is the picture tube.
For continued X-radiation protection, the replacement tube must be the same type as the original, PIONEER approved type.
The picture tube (CRT Service Assy R, G, B) used in this set holds complete guarantee against X-ray radiation when the X-ray is sealed (See page 4). Accordingly, when the current in flowing to the picture tube (CRT Service Assy R, G, B), be sure to perform it by putting the tube into X-ray sealed applied state. Avoid absolutely to flow the current to the picture tube (CRT Service Assy R, G, B) itself. Moreover, when the voltage of the high voltage circuit becomes abnormally a little higher, the picture tube radiates X-rays.
Accordingly, when servicing the high voltage circuit be sure to replace as an assy with the POWER SUPPLY Assy in the manner in which has been adjusted to perform normal operation.

1.2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.
Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.
The use of a substitute replacement component which dose not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, X-radiation, or other hazards.
Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

1.3 CHARGED SECTION, HIGH VOLTAGE GENERATING POINT AND X-RAY PROTECTION

■ Charged section

The circuit in which the commercial AC power is used as it is without passing through the power supply transformer. If the charged section is touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. In this case, be sure to connect the set via an insulated transformer and supply the current.

■ Charged section (Power supply primary side)

1. The primary side of the AC IN assy
2. AC power cord
3. The primary side of the POWER SUPPLY assy

: Part is the charged section.
: Part is the high voltage generating points other than the charged section.

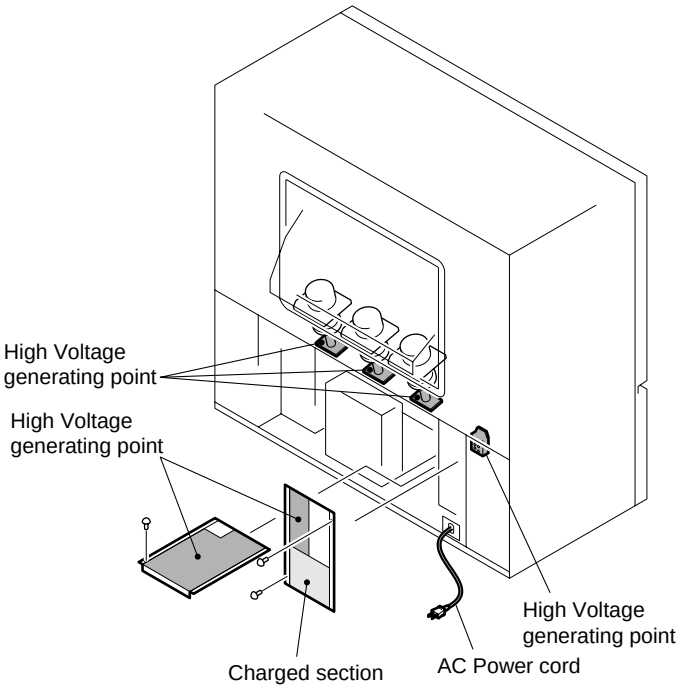


Fig. 1 Charged section and high voltage generating point

■ High voltage generating point

The place where voltage is 100V is generated.

1.Charged seciton
DEFLECTION assy
(including FBT) (30.5kV, 1.2kV, 210V,135V)
2. POWER SUPPLY assy (135V)
3. R. CRT DRIVE assy (10.5kV, 210V)
4. G. CRT DRIVE assy (10.5kV, 210V)
5. B. CRT DRIVE assy (10.5kV, 210V)
6. CRT assy R (CRT service assy R) (30.5kV)
7. CRT assy G (CRT service assy G) (30.5kV)
8. CRT assy B (CRT service assy B) (30.5kV)
9. Focus variable resistor(VR1) (10.5kV)
10. Deflection yokes (L1, L2 and L3) Approx. (1100V at peak)

■ X-ray protection

- Regarding the parts which are relative to radiation of X-rays (There is the danger to radiate X-ray from the individual CRT assy R, G, B), there are notifications of caution in the individual schematic diagrams. Be sure to read them for safety's sake.
- The component parts for X-ray protection are as follows : When the current flows to the CRT assy R, G, B, be sure to perform it with these parts being attached. Protection from the X-ray radiation is maintained in the state in which these parts have been installed to the CRT assy. R, G, B. Accordingly, never supply current only to the CRT assy R, G, B.
  Moreover, the anode voltage of the CRT assy R, G, B should always be kept not higher than the predetermined value (in the minimum brightness and picture state when non signal input is less than 30.5kV). Be sure to drive the CRT assy R, G, B by using a completely functional DEFLECTION assy which have been adjusted completely in the combined state. (When the voltage abnormally becomes high, the X-ray protection circuit will operate.)

1. CRT assy R, G, B (Do not dismantle CRT assemblies under any circumastances)
2. Each Lens assy

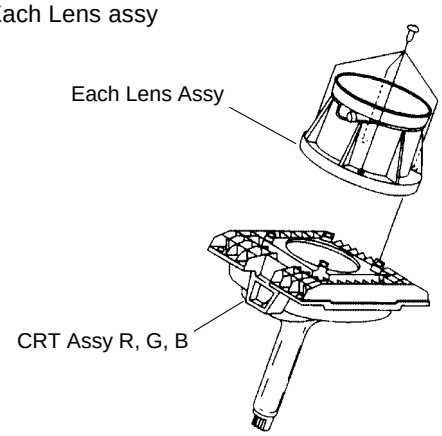
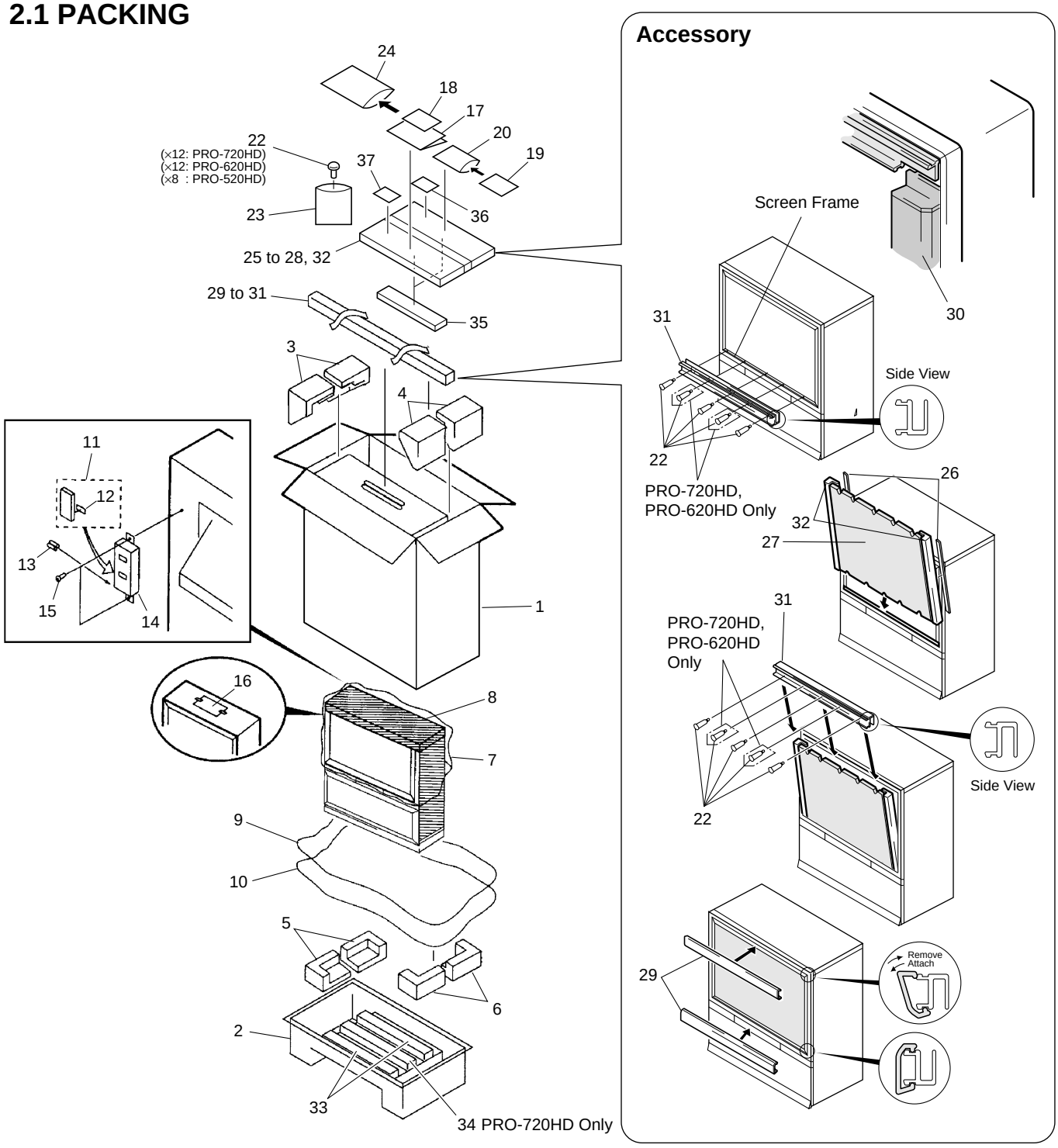


Fig. 2 Component parts for X-ray protection

2. EXPLODED VIEWS AND PARTS LIST

NOTES :
- *Parts marked by " NSP " are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
- *Screws adjacent to ▼ mark on the product are used for disassembly.*

2.1 PACKING



(1) PACKING PARTS LIST

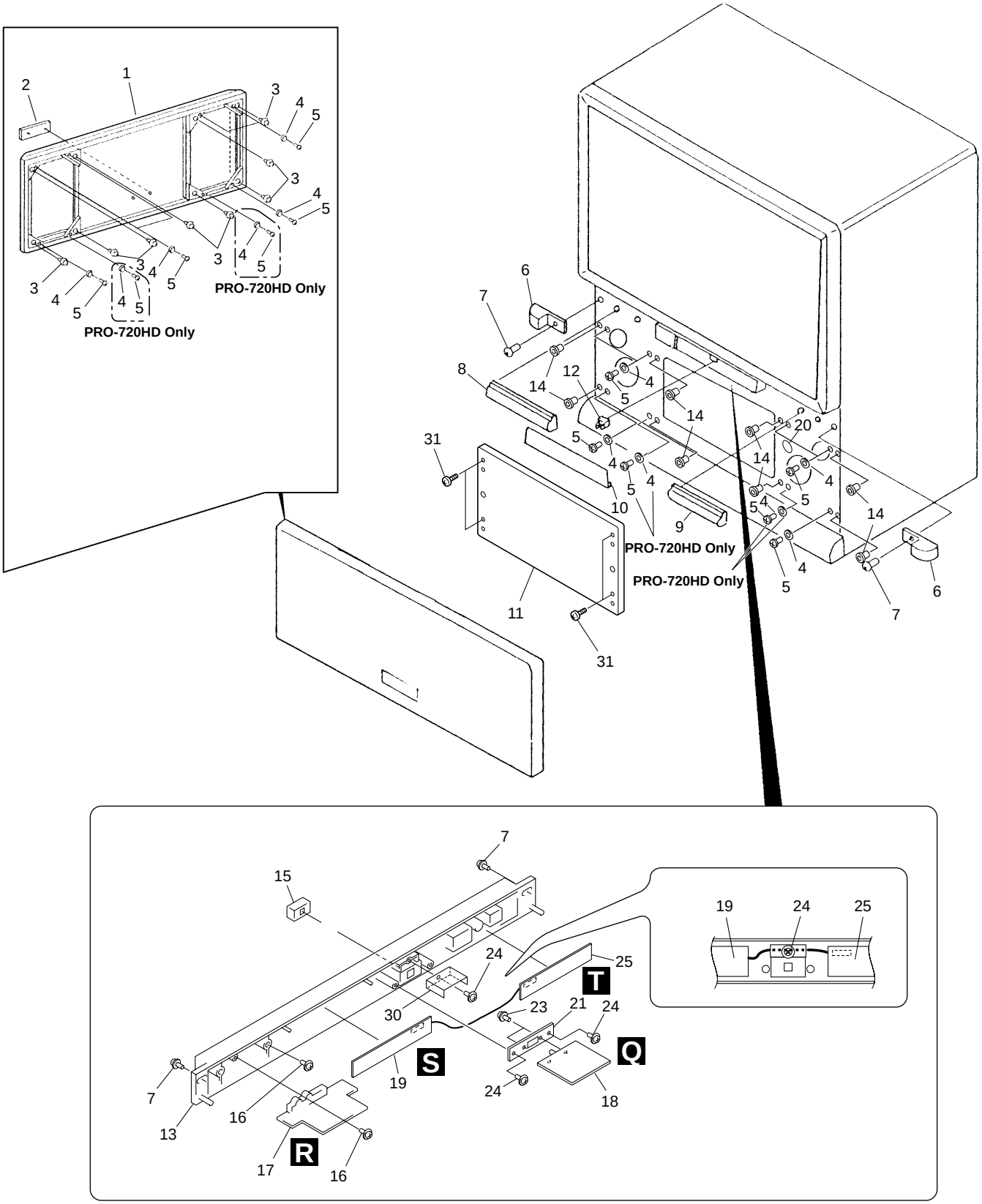
Mark	No.	Description	Part No.
	1	Upper Carton	See Contrast table (2)
	2	Under Carton	See Contrast table (2)
	3	Upper Pad L	See Contrast table (2)
	4	Upper Pad R	See Contrast table (2)
	5	Under Pad L	See Contrast table (2)
	6	Under Pad R	See Contrast table (2)
NSP	7	Vinyl Sheet Upper	See Contrast table (2)
NSP	8	Packing Sheet	See Contrast table (2)
NSP	9	Packing Sheet Under	See Contrast table (2)
	10	Vinyl Sheet Under	See Contrast table (2)
	11	Remote Control Unit	AXD1458
	12	Battery Cover	AZN2401
NSP	13	Alkarine Dry Cell Battery(LR6,AA)	AEX1018
	14	CU Packing Case	AHC1032
	15	Special Screw	ABA1239
	16	CONV. Attention Card	ARM1173
	17	Operating Instructions (English)	ARB1543
NSP	18	Caution Card	ARM1057
NSP	19	Warranty Card	ARY1026
NSP	20	Poly Bag	AHG1285
	21	• • • • •	
	22	Special Screw (Panel Frame Attaching Screw)	See Contrast table (2)
NSP	23	Wrapper Bag	AHG1076
NSP	24	Literature Bag	AHG1222
	25	Panel Case	See Contrast table (2)
	26	Panel Cushion	AEC1790
	27	Contrast Screen	See Contrast table (2)
	28	Acrylic Caution Card	ARH1167
	29	Frame Cover H	See Contrast table (2)
	30	Frame Cover V Assy	See Contrast table (2)
	31	Panel Frame H	See Contrast table (2)
	32	Panel Frame V	See Contrast table (2)
NSP	33	Under Cushion A	See Contrast table (2)
NSP	34	Under Cushion B	See Contrast table (2)
	35	Cushion	See Contrast table (2)
	36	PC Caution Card (English)	ARM1190
	37	PC Caution Card (French)	ARM1191

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
	1	Upper Carton	AHD3092	AHD3091	AHD3090	
	2	Under Carton	AHD2995	AHD3047	AHD3048	
	3	Upper Pad L	AHA2222	AHA2253	AHA2253	
	4	Upper Pad R	AHA2223	AHA2254	AHA2254	
	5	Under Pad L	AHA2224	AHA2255	AHA2255	
	6	Under Pad R	AHA2225	AHA2256	AHA2256	
NSP	7	Vinyl Sheet Upper	AHG1288	AHG1288	AHG1095	
NSP	8	Packing Sheet	AHG1230	AHG1230	AHG1120	
NSP	9	Packing Sheet Under	AHG1290	AHG1290	AHG1235	
	10	Vinyl Sheet Under	AHG1289	AHG1289	AHG1234	
	22	Special Screw	ABA1226	ABA1280	ABA1280	
	25	Panel Case	AHB1228	AHB1227	AHB1226	
	27	Contrast Screen	AAK2777	AAK2776	AAK2775	
	29	Frame Cover H	AAP1593	AAP1613	AAP1614	
	30	Frame Cover V Assy	AAP1594	AAP1617	AAP1619	
	31	Panel Frame H	AND1163	AAP1629	AAP1630	
	32	Panel Frame V	AND1164	AND1169	AND1167	
NSP	33	Under Cushion A	AHA2228	AHA2258	AHA2260	
NSP	34	Under Cushion B	AHA2229	Not used	Not used	
	35	Cushion	AHA2268	AHA2267	AHA2266	

2.2 FRONT VIEW (1/2)



(1) FRONT VIEW (1/2) PARTS LIST

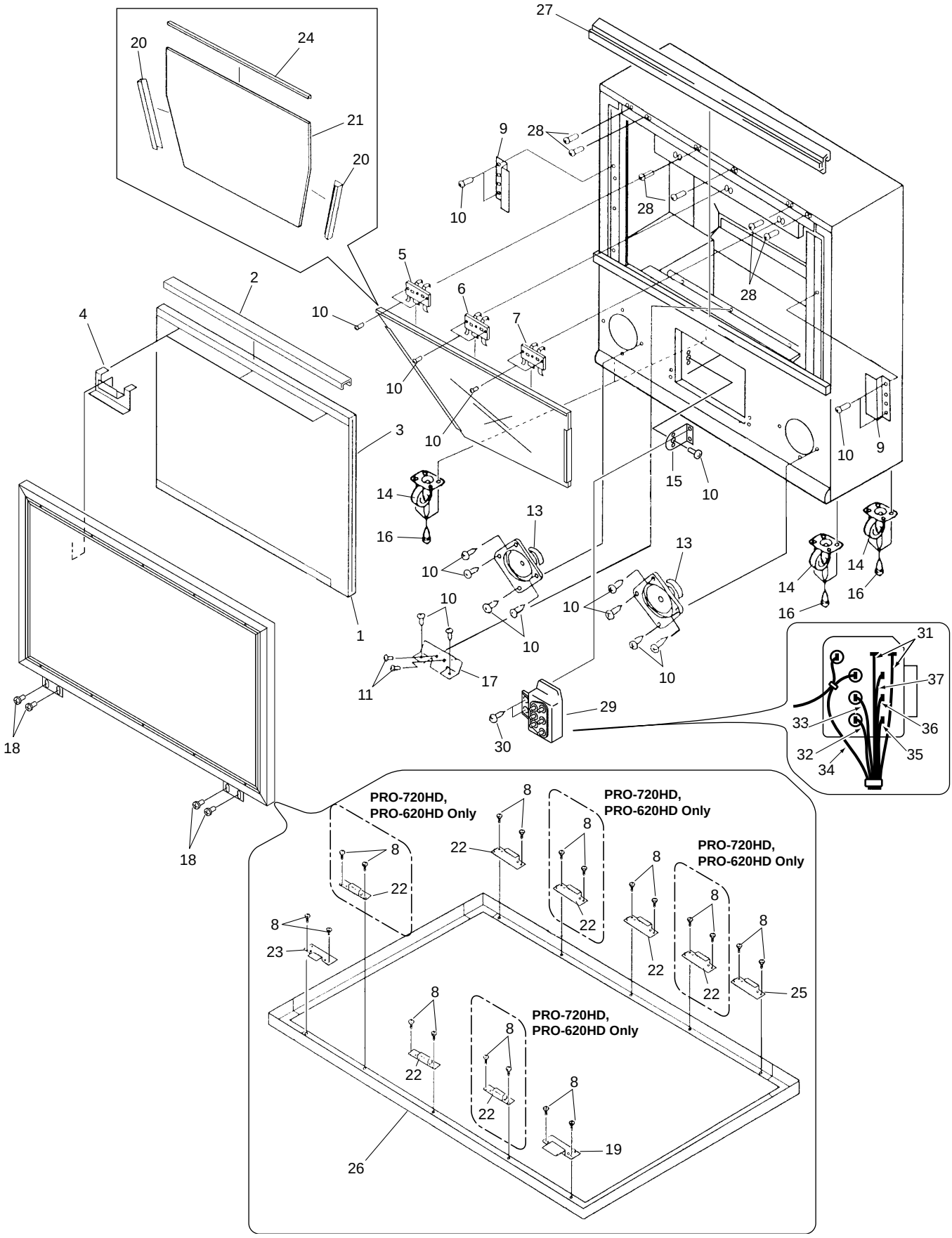
Mark	No.	Description	Part No.
	1	Grille	See Contrast table (2)
	2	Badge	AAM1081
NSP	3	Catcher A	ANZ-241
	4	Magic Tape	AEC1394
	5	Screw	ABA1271
	6	Side Cover	AMR3107
	7	Special Screw	ABA1240
	8	Side Panel Assy L	See Contrast table (2)
	9	Side Panel Assy R	See Contrast table (2)
	10	Door Assy	AAN1464
	11	Blind Plate	AMM3009
	12	Catcher F2M	AEC1609
	13	Front Panel Assy	AMB2688
	14	Catch B	AEC1507
	15	Power Knob	AAD4105
	16	Screw	ABZ40P080FZK
	17	FRONT INPUT Assy	AWZ6466
	18	POWER SW Assy	AWZ6467
	19	FRONT CONTROL Assy	AWZ6462
NSP	20	UL Caution Card	AAX1238
NSP	21	Switch Holder	ANG2313
	22	• • • • •	
	23	Screw	AMZ30P060FZK
	24	Screw	APZ30P080FZK
	25	LED DPO Assy	AWZ6470
	26	• • • • •	
	27	• • • • •	
	28	• • • • •	
	29	• • • • •	
NSP	30	Front Shield	ANK1502
	31	Special Screw	ABA1249

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
	1	Grille	AMM3119	AMM3118	AMM3117	
	8	Side Panel Assy L	AMB2702	AMB2701	AMB2700	
	9	Side Panel Assy R	AMB2691	AMB2690	AMB2689	

2.3 FRONT VIEW (2/2)



(1) FRONT VIEW (2/2) PARTS LIST

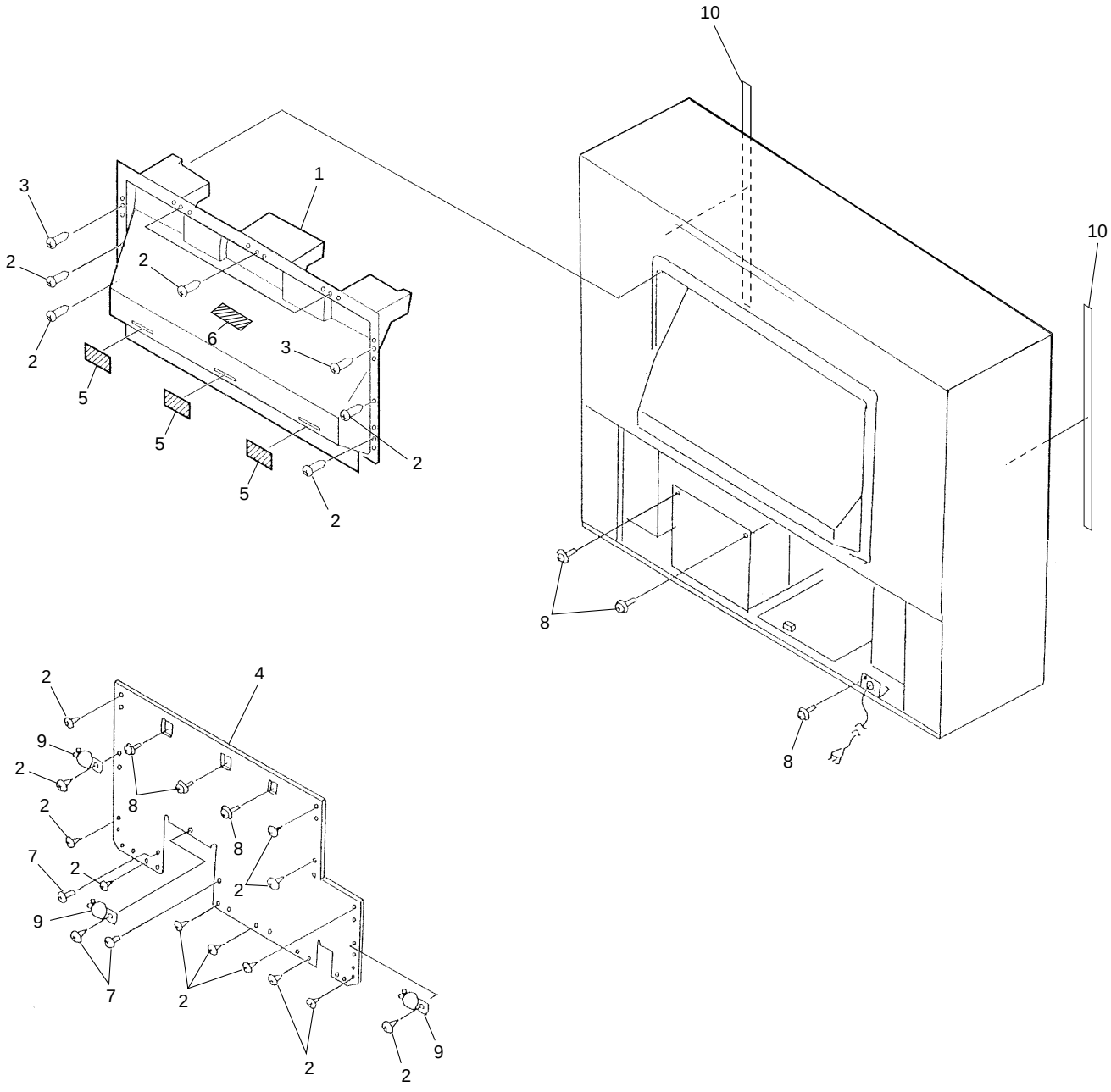
Mark	No.	Description	Part No.
	1	Lenticular Sheet	See Contrast table (2)
	2	Screen Holder Top	See Contrast table (2)
	3	Fresnel	See Contrast table (2)
NSP	4	Upper Cabinet Metal	ANG2000
NSP	5	Mirror Upper Stay L	ANG2004
NSP	6	Mirror Upper Stay C	ANG2006
NSP	7	Mirror Upper Stay R	ANG2005
	8	Screw	BYC40P160FMC
NSP	9	Screen Side Fitting	ANG1993
	10	Special Screw	ABA1240
	11	Screw	ACZ40P080FMC
	12	• • • • •	
	13	Cone Speaker	APV1021
	14	Caster	AMR2547
NSP	15	VR Holder	ANG1956
	16	Special Screw	ABA1273
NSP	17	CRT Front Holder	ANG2118
	18	Screw M5	ABA1189
NSP	19	Under Screen Metal B	ANG2009
	20	Mirror Frame V	See Contrast table (2)
	21	Mirror	See Contrast table (2)
NSP	22	Upper Screen Metal B	ANG2002
NSP	23	Under Screen Metal A	ANG2003
	24	Mirror Frame H	See Contrast table (2)
NSP	25	Upper Screen Metal A	ANG2001
	26	Screen Frame Assy	See Contrast table (2)
	27	Screen Holder Low	See Contrast table (2)
	28	Screw	BYC35P160FZK
⚠	29	Focus VR (VR1)	ACX1096
	30	Screw	BBZ30P080FZK
	31	4P Housing Wire	ADX2484
	32	1P Lead Wire	ADX2558
	33	1P Lead Wire	ADX2559
	34	1P Lead Wire	ADX2560
	35	1P Lead Wire	ADX2561
	36	1P Lead Wire	ADX2562
	37	1P Lead Wire	ADX2563

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
	1	Lenticular Sheet	AMR3277	AMR3250	AMR3249	
	2	Screen Holder Top	ANG2312	ANG2369	ANG2370	
	3	Fresnel	AMR3116	AMR3186	AMR3187	
	20	Mirror Frame V	ANG2392	ANG2373	ANG2374	
	21	Mirror	AMR3113	AMR3188	AMR3189	
	24	Mirror Frame H	ANG2391	ANG2371	ANG2372	
	26	Screen Frame Assy	AAP1636	AAP1635	AAP1634	
	27	Screen Holder Low	AAP1601	AAP1646	AAP1645	

2.4 REAR VIEW (1/2)



(1) REAR VIEW (1/2) PARTS LIST

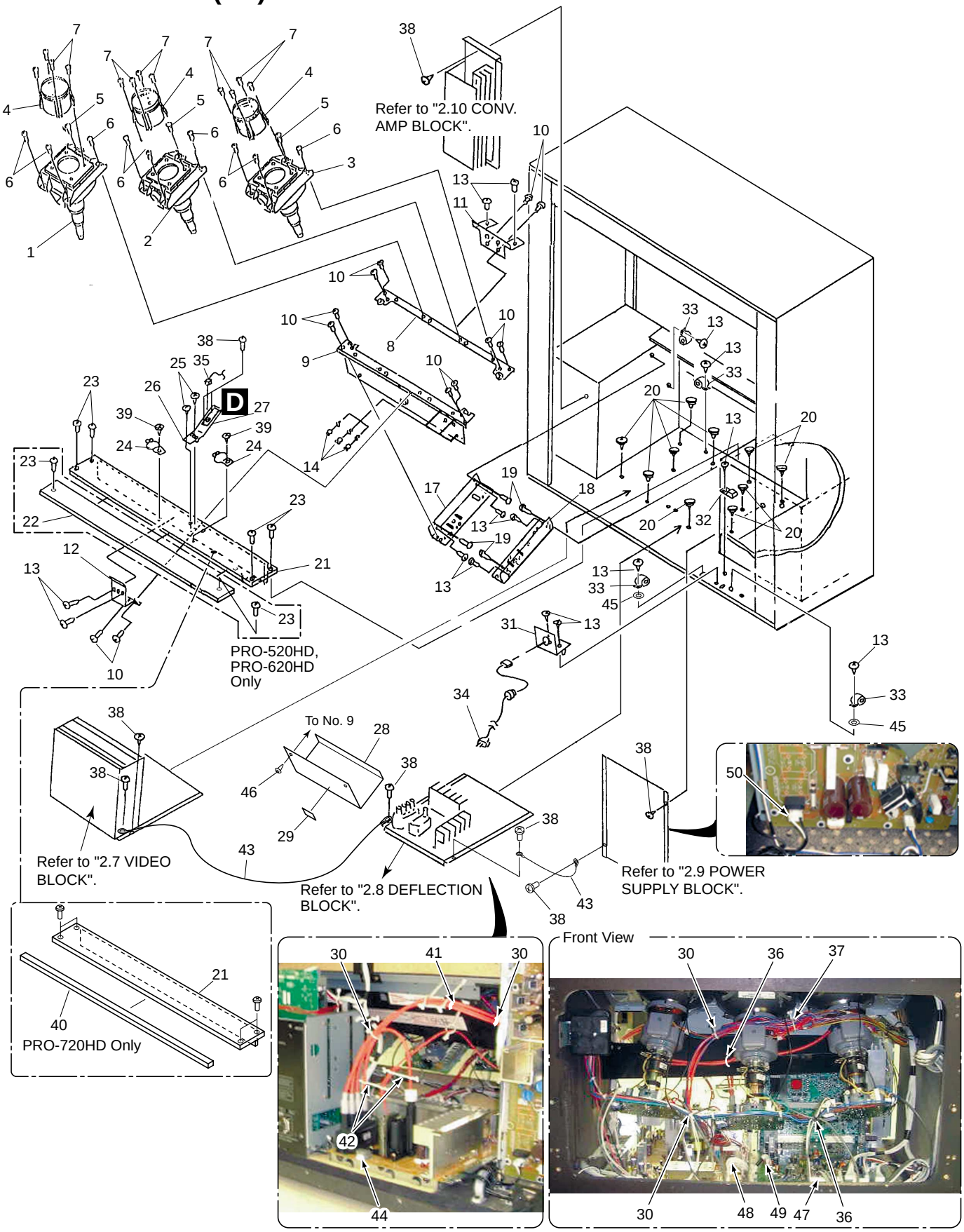
Mark	No.	Description	Part No.
	1	Mirror Case 51	AME2296
	2	Screw	ABA1240
	3	Screw	PYC40T140FZB
	4	Rear Cover	See Contrast table (2)
	5	Blind Sheet	AEC1622
	6	Mirror Case Label	AAX2448
	7	Screw	ABZ30P100FZK
	8	Screw	ABA1269
NSP	9	Cabinet Wire Holder	AEC1263
	10	Screen Cushion	See Contrast table (2)

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
	4	Rear Cover	AMM2929	AMM2999	AMM2999	
	10	Screen Cushion	AEC1778	AEC1830	AEC1831	

2.5 REAR VIEW (2/2)


Refer to "2.10 CONV. AMP BLOCK".
PRO-520HD, PRO-620HD Only
To No. 9
Refer to "2.7 VIDEO BLOCK".
Refer to "2.8 DEFLECTION BLOCK".
Refer to "2.9 POWER SUPPLY BLOCK".
PRO-720HD Only
Front View

(1) REAR VIEW (2/2) PARTS LIST

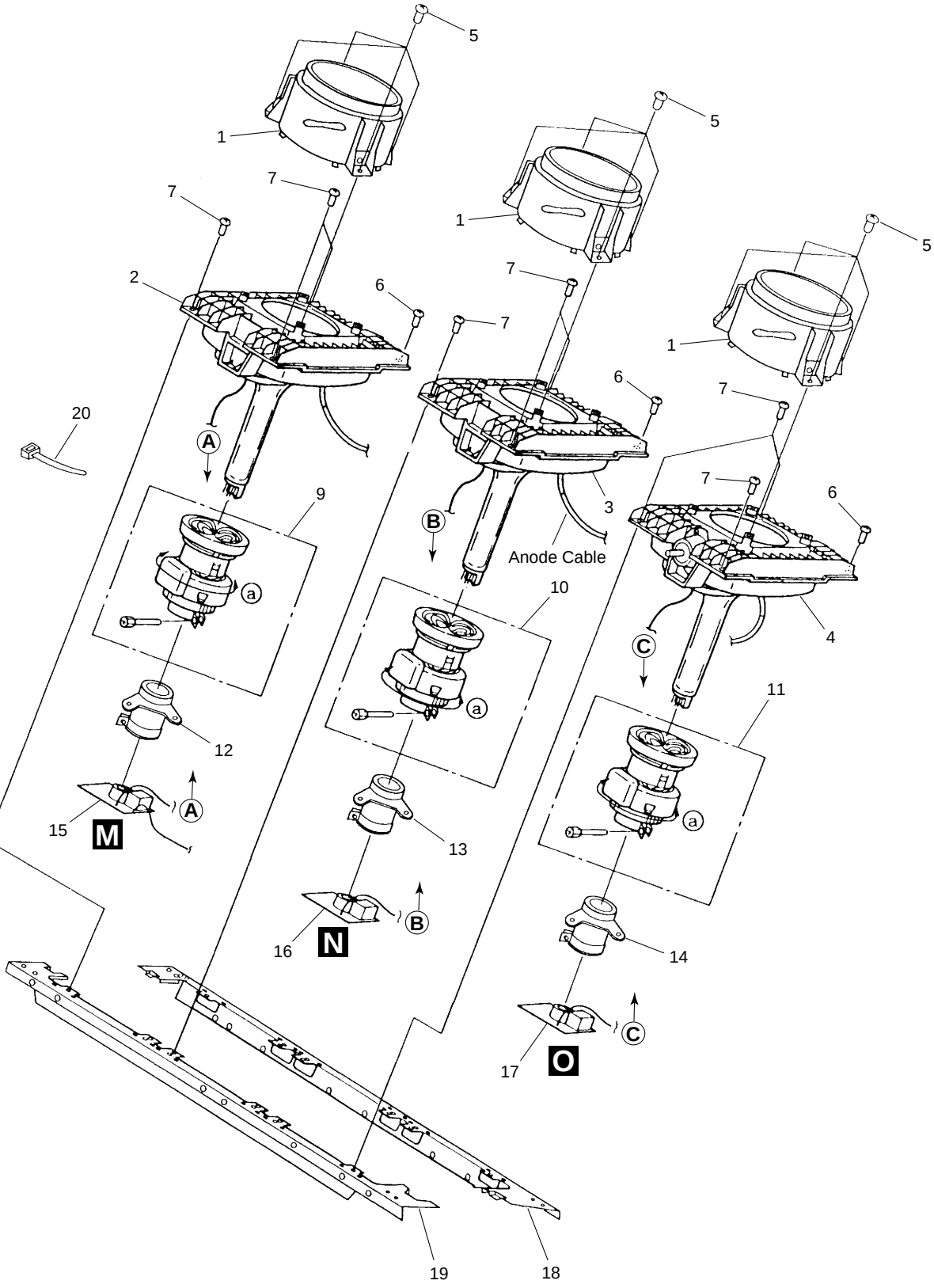
Mark	No.	Description	Part No.
☆	1	CRT Service Assy B	See Contrast table (2)
☆	2	CRT Service Assy G	AWY1431
☆	3	CRT Service Assy R	See Contrast table (2)
☆	4	Lens Assy	See Contrast table (2)
	5	Screw	FBT40P120FZK
	6	Screw	ABA1168
	7	Screw	AMZ40P080FZK
NSP	8	CRT Front Frame	See Contrast table (2)
NSP	9	CRT Rear Frame	See Contrast table (2)
	10	Screw	ACZ40P080FMC
NSP	11	CRT Front Holder	ANG2118
NSP	12	CRT Rear Holder	ANG2119
	13	Screw	ABA1240
	14	Cord Holder	AEC1257
	15	• • • • •	
	16	• • • • •	
NSP	17	CRT Stand Holder R	ANA1497
NSP	18	CRT Stand Holder L	ANA1496
	19	Screw	PMB50P250FZB
	20	Special Screw	ABA1121
NSP	21	Back Cover Panel	See Contrast table (2)
NAP	22	Rear Cover Panel	See Contrast table (2)
	23	Screw	ABA1241
NSP	24	Cabinet Wire Holder	AEC1263
	25	Screw	ABA1279
NSP	26	Fixing Metal	ANG1958
	27	SR Assy	AWZ6465
NSP	28	Tray	AMR2936
NSP	29	Solder Warning Label	AAX2835
	30	Purse Lock	AEC1540
NSP	31	AC Cord Holder A	ANG2307
	32	Bind Holder	AEC1785
	33	Ferrite Core	ATX1040
⚠	34	AC Power Cord	ADG1180
	35	3P Housing Wire	ADX2566
NSP	36	Purse Lock S	AEC1261
NSP	37	Purse Lock L	AEC1422
	38	Screw	BBZ30P080FZK
	39	Screw	ABA1271
	40	Back Cover Cushion	See Contrast table (2)
	41	Binder	AEC1793
NSP	42	Cable Clip	AEC1369
	43	1P Lead Wire (J1)	ADX2505
	44	Shield Case	ANK1510
	45	Nylon Washer	AEC1863
	46	Screw	ABZ30P100FZK
	47	Wire Harness B	ADX2487
	48	Wire Harness A	ADX2564
	49	Wire Harness E	ADX2565
	50	2P Lead Wiht Housing	ADX2568

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
☆	1	CRT Service Assy B	AWY1438	AWY1435	AWY1433	
☆	3	CRT Service Assy R	AWY1437	AWY1434	AWY1432	
☆	4	Lens Assy	AMR3235	AMR3248	AMR3248	
NSP	8	CRT Front Frame	ANA1541	ANA1613	ANA1614	
NSP	9	CRT Rear Frame	ANA1542	ANA1615	ANA1616	
NSP	21	Back Cover Panel	AMM3122	AMM3001	AMM3002	
NSP	22	Rear Cover Panel	Not used	AMM3121	AMM3121	
	40	Back Cover Cushion	AEC1779	Not used	Not used	

2.6 CRT BLOCK


5
1
7
2
6
20
A
9
a
12
15
M
A
13
B
16
N
B
3
Anode Cable
10
C
4
11
14
17
O
C
19
18

(1) CRT BLOCK PARTS LIST

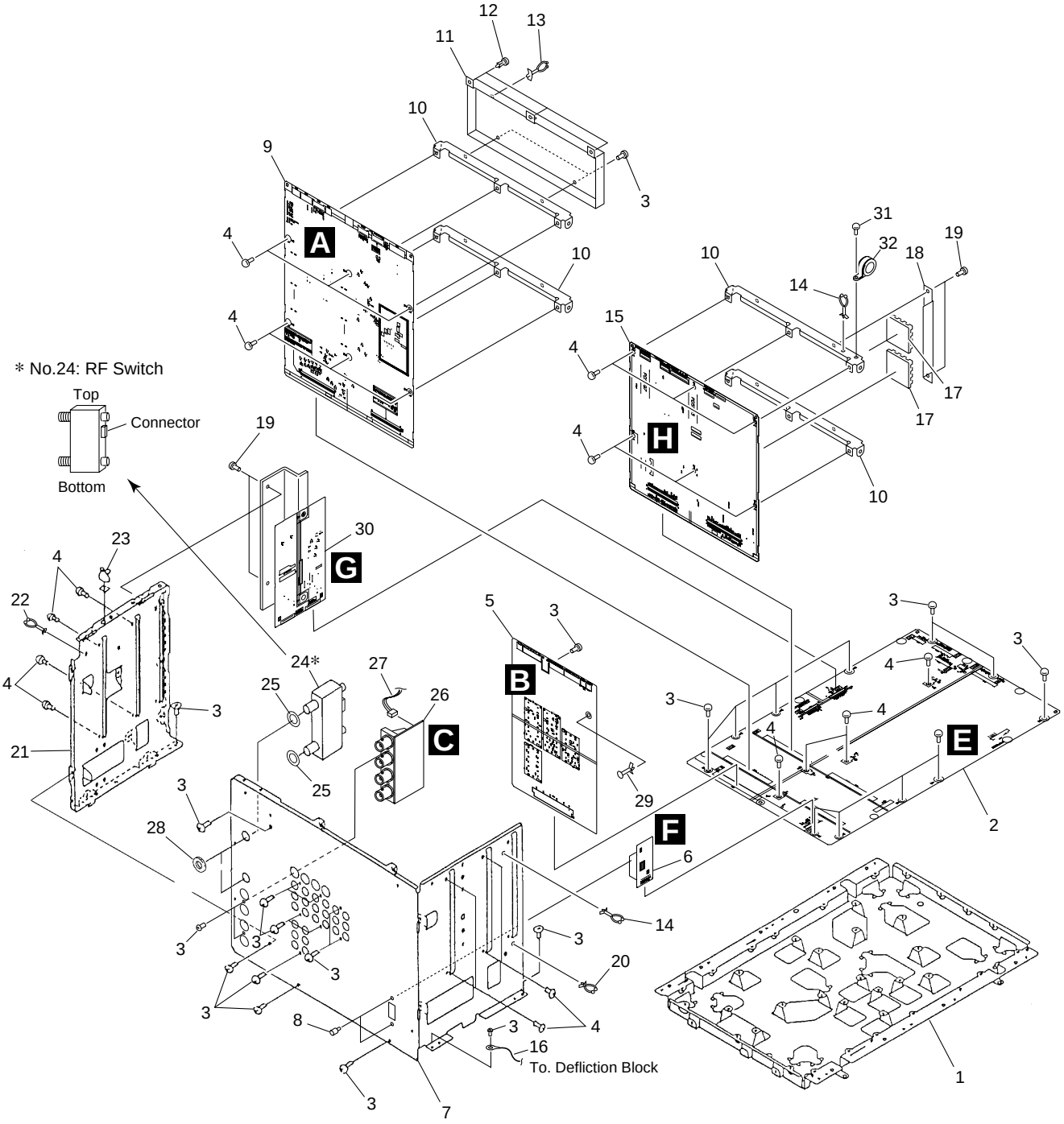
Mark	No.	Description	Part No.
☆	1	Lens Assy	See Contrast table (2)
☆	2	CRT Service Assy R	See Contrast table (2)
☆	3	CRT Service Assy G	AWY1431
☆	4	CRT Service Assy B	See Contrast table (2)
	5	Screw	AMZ40P080FZK
	6	Screw	FBT40P120FZK
	7	Screw	ABA1168
	8	• • • • •	
⚠	9	Deflection Yoke (L1)	ATL1145
⚠	10	Deflection Yoke (L2)	ATL1145
⚠	11	Deflection Yoke (L3)	ATL1145
⚠	12	VM Coil (L4)	ATL1137
⚠	13	VM Coil (L5)	ATL1137
⚠	14	VM Coil (L6)	ATL1137
	15	R. CRT DRIVE Assy	AWZ6601
	16	G. CRT DRIVE Assy	AWZ6602
	17	B. CRT DRIVE Assy	AWZ6603
NSP	18	CRT Rear Frame	See Contrast table (2)
NSP	19	CRT Front Frame	See Contrast table (2)
	20	Nylon Binder	AEC-093

(2) CONTRAST TABLE

PRO-720HD, PRO-620HD and PRO-520HD are constructed the same except for the following:

Mark	No.	Symbol and Description	Part No.			Remarks
			PRO-720HD KUXC/CA	PRO-620HD KUXC/CA	PRO-520HD KUXC/CA	
☆	1	Lens Assy	AMR3235	AMR3248	AMR3248	
☆	2	CRT Service Assy R	AWY1437	AWY1434	AWY1432	
☆	4	CRT Service Assy B	AWY1438	AWY1435	AWY1433	
NSP	18	CRT Rear Frame	ANA1542	ANA1615	ANA1616	
NSP	19	CRT Front Frame	ANA1541	ANA1613	ANA1614	

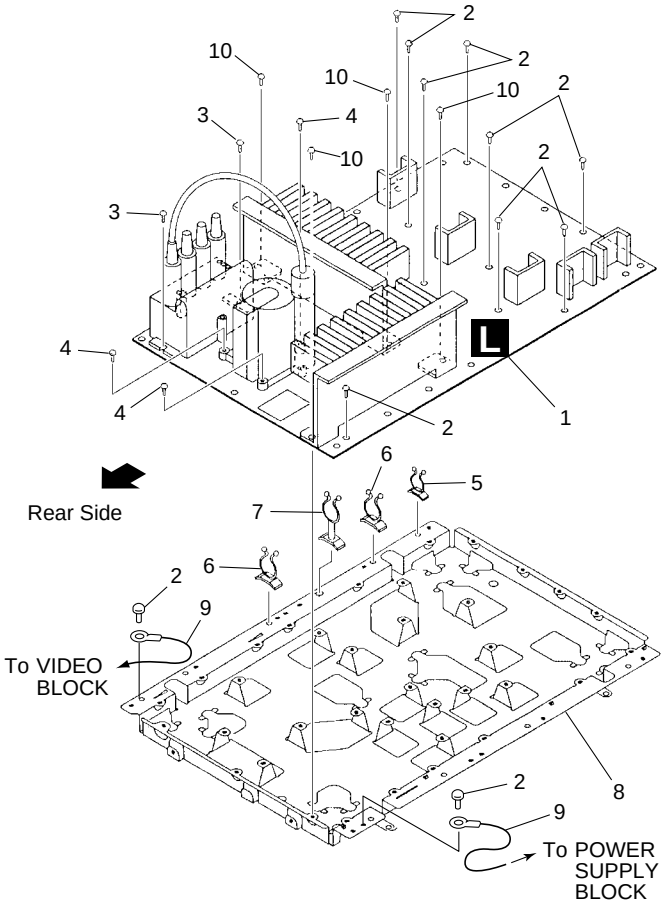
2.7 VIDEO BLOCK



VIDEO BLOCK PARTS LIST

Mark	No.	Description	Part No.
NSP	1	Video Chassis	ANA1584
	2	VIDEO Assy	AWV1916
	3	Screw	BBZ30P080FZK
	4	Screw	BBZ30P080FCU
	5	AV I/O Assy	AWV1919
	6	RGB SW Assy	AWZ6468
	7	Rear Panel	ANC2348
	8	Hexagon Head Screw	BBA1051
	9	SIGNAL Assy	AWV1917
NSP	10	PCB Sub Frame	ANG2304
	11	Signal Shield	ANK1629
	12	Rivet	AEC–441
NSP	13	Cable Clip D3S	AEC1782
	14	Cable Clip	AEC1806
	15	SUB VIDEO Service Assy	AWV1922
	16	1P Lead Wire	ADX2505
NSP	17	IP Heat Sink	ANH1591
	18	IP Heat Sink Holder	AEC1850
	19	Screw	ABZ30P100FZK
NSP	20	Cable Clip D3M	AEC1783
NSP	21	PCB Side Holder	ANG2305
	22	Cable Clip	AEC1806
NSP	23	Cable Clip A	AEC1325
	24	RF Switch	AXF1088
	25	Washer	WAX0F160N100
	26	BNC Assy	AWV1920
	27	Housing Wire	ADX2681
	28	Nut	BBN1005
NSP	29	Mini Card Spacer	AEC1835
	30	AUDIO Assy	AWZ6472
	31	Screw	ABZ30P100FMC
	32	Ferrite Core	ATX1040

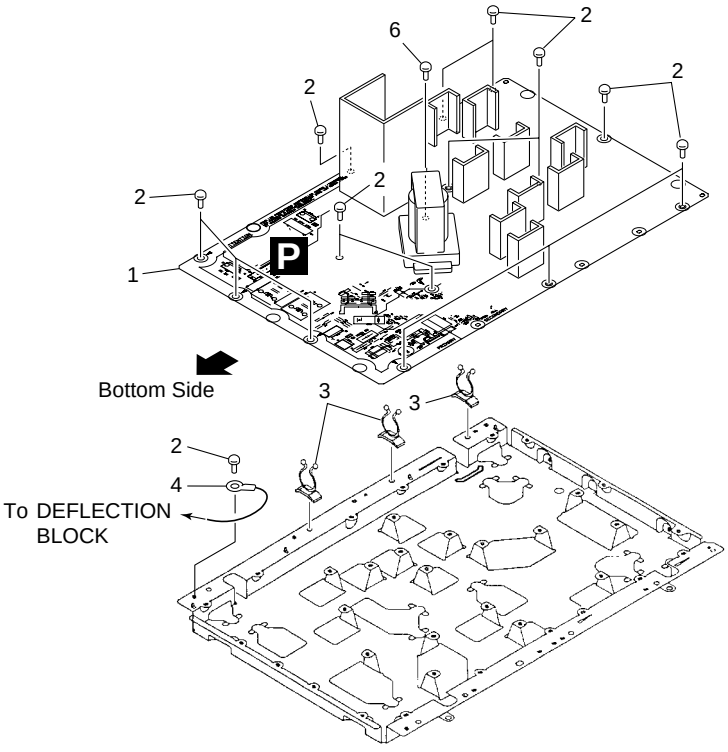
2.8 DEFLECTION BLOCK



■ DEFLECTION BLOCK PARTS LIST

Mark	No.	Description	Part No.
☆	1	DEFLECTION SERVICE Assy	AWV1921
	2	Screw	BBZ30P080FZK
	3	Screw	ABZ30P100FZK
	4	Screw	VBZ30P200FMC
NSP	5	Cable Clip D3S	AEC1782
NSP	6	Cable Clip D3M	AEC1783
NSP	7	Cable CliP	AEC1325
NSP	8	DF Chassis	ANA1583
	9	1P Laed Wire	ADX2505
	10	Screw	ABA1099

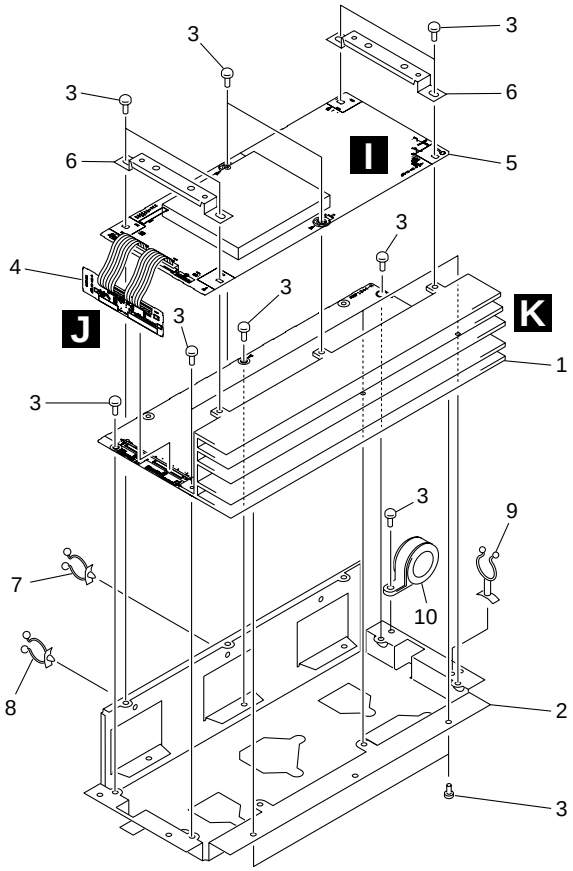
2.9 POWER SUPPLY BLOCK



■ POWER SUPPLY BLOCK PARTS LIST

Mark	No.	Description	Part No.
	1	POWER SUPPLY Assy	AWV1912
	2	Screw	BBZ30P080FZK
NSP	3	Cable Clip D3M	AEC1783
	4	1P Laed Wire	ADX2505
	5	• • • • •	
	6	Screw	ABZ30P100FMC

2.10 CONV. AMP BLOCK



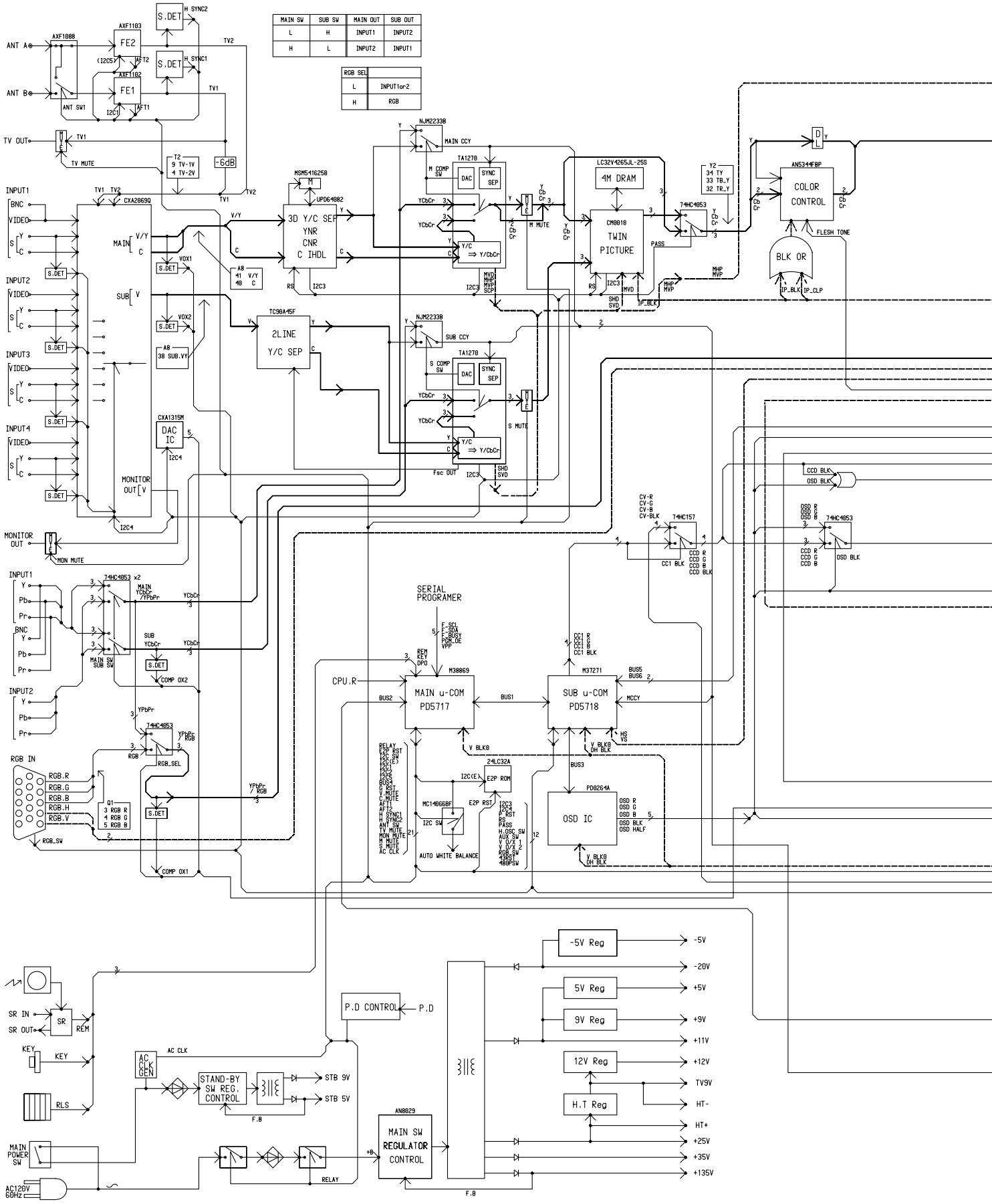
■ CONV. AMP BLOCK PARTS LIST

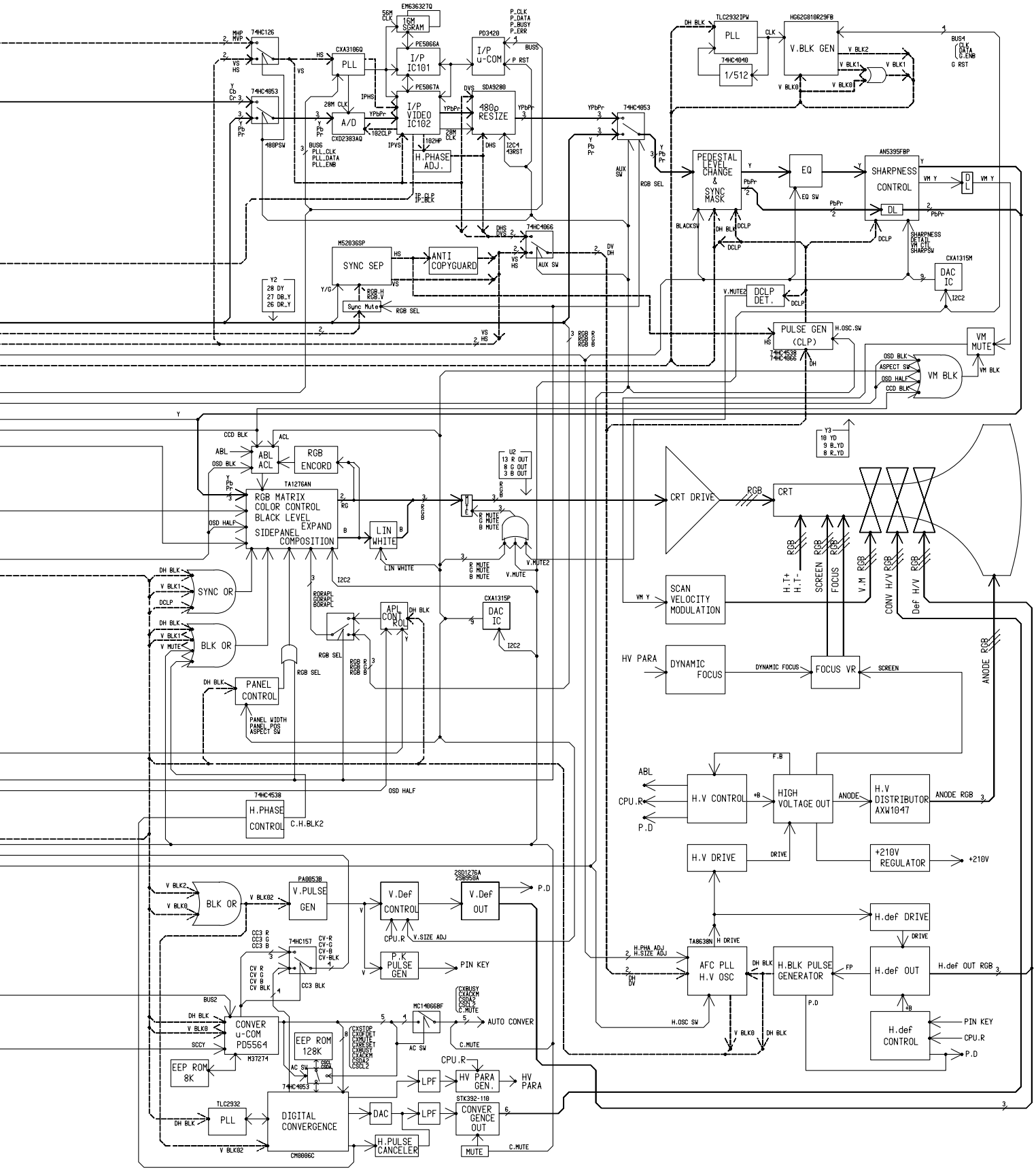
Mark	No.	Description	Part No.
	1	CONV. AMP Assy	AWZ6649
NSP	2	CONV. Chassis	ANA1619
	3	Screw	ABZ30P100FMC
	4	CONNECTOR Assy	AWZ6461
	5	DIGITAL CONV. ASSY	AWZ6460
NSP	6	CONV. Holder	ANG2365
NSP	7	Cable Clip D3M	AEC1783
NSP	8	Cable Clip D3S	AEC1782
	9	Cable Clip	AEC1806
	10	Ferrite Core	ATX1040

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

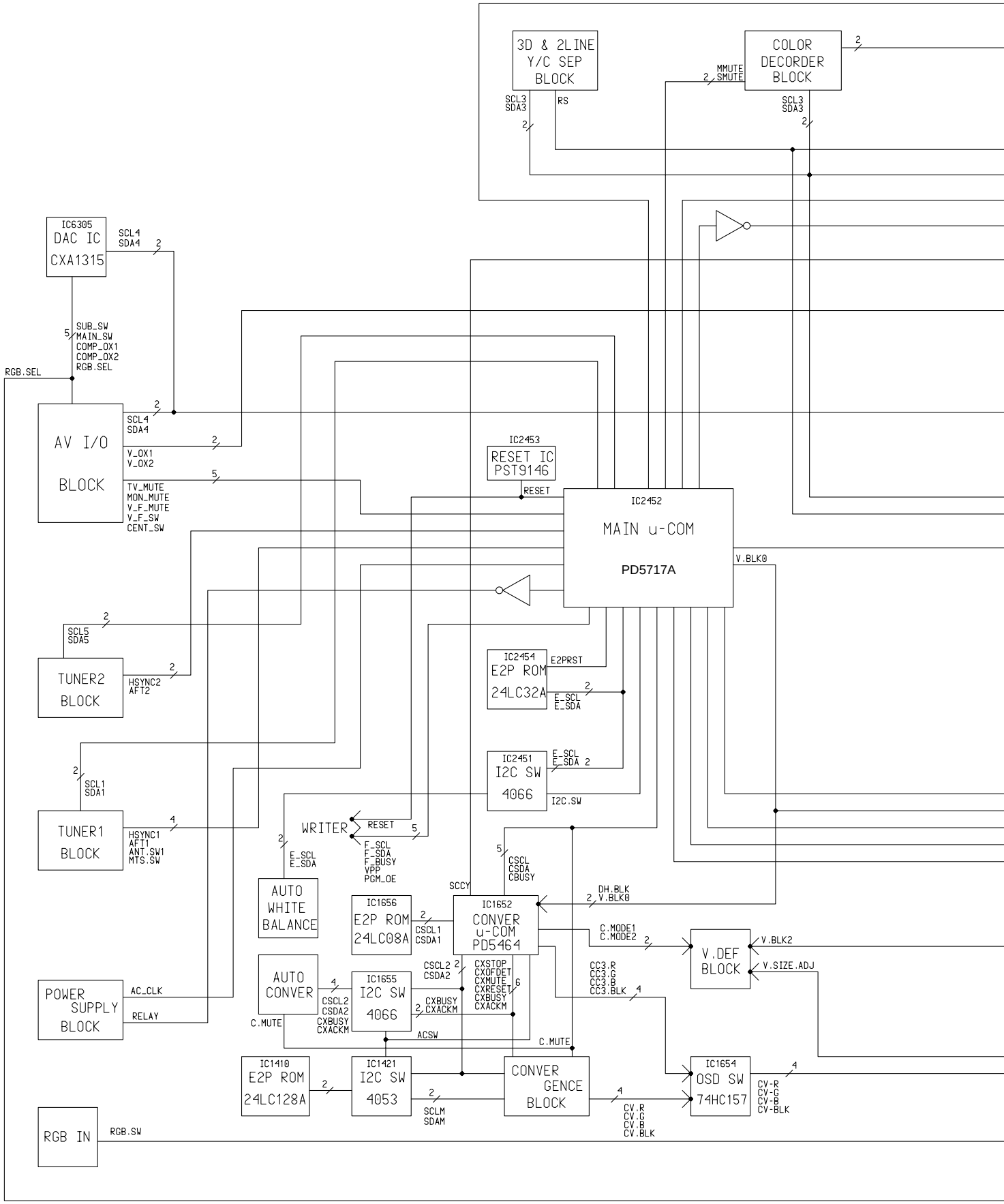
3.1 BLOCK DIAGRAM

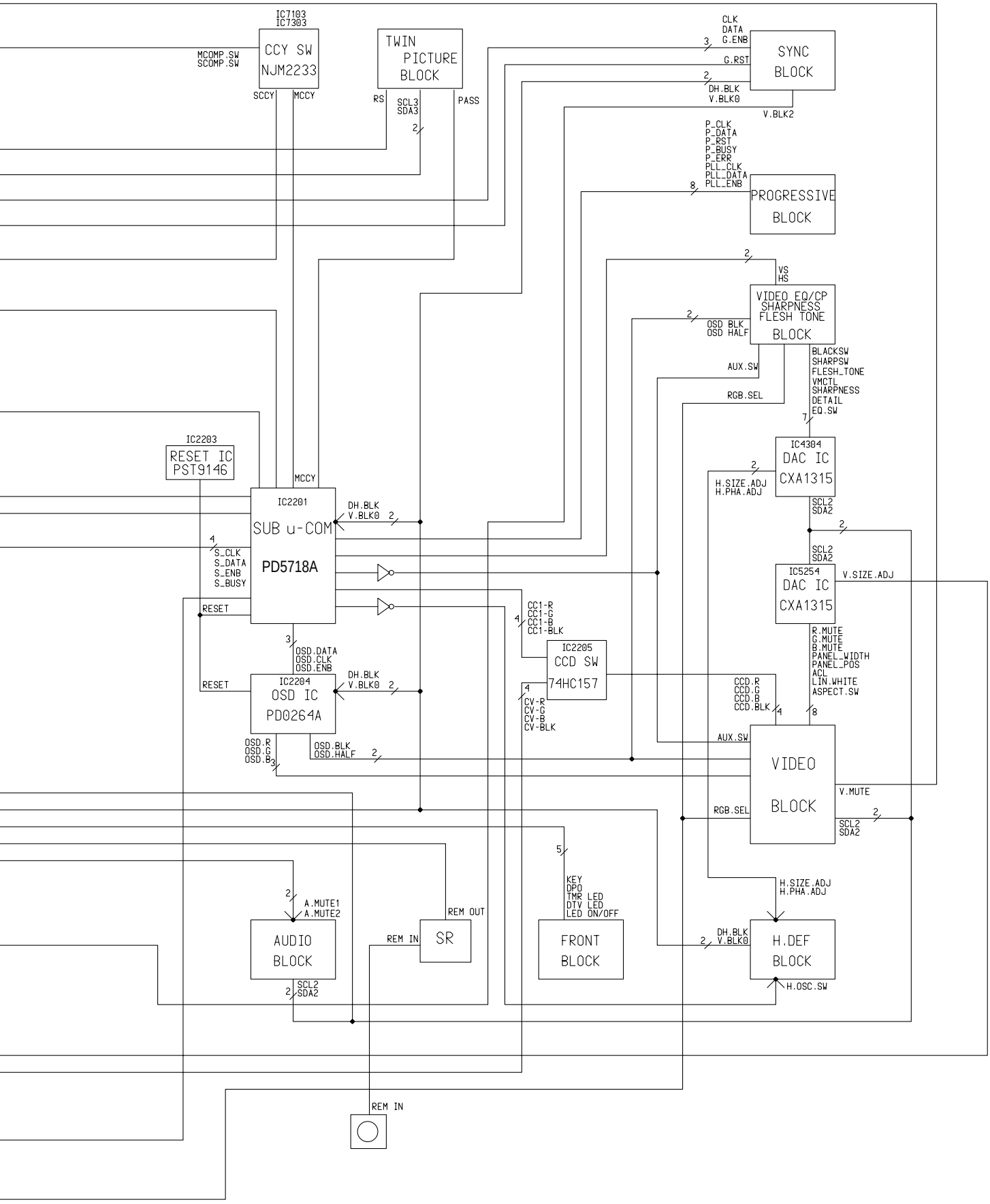
3.1.1 OVERALL BLOCK DIAGRAM




I/P IC101
I/P VIDEO IC102
I/P u-COM
480p RESIZE
A/D
PLL
H.PHASE ADJ.
SYNC SEP
ANTI COPYGUARD
PEDESTAL LEVEL CHANGE & SYNC MASK
EQ
SHARPNESS CONTROL
DAC IC
DCLP DET.
PULSE GEN (CLP)
VM MUTE
VM BLK
RGB MATRIX COLOR CONTROL BLACK LEVEL EXPAND SIDEPANEL COMPOSITION
RGB ENCORD
ABL ACL
LIN WHITE
CRT DRIVE
CRT
SCAN VELOCITY MODULATION
DYNAMIC FOCUS
FOCUS VR
SYNC OR
BLK OR
PANEL CONTROL
APL CONTROL
H.V CONTROL
HIGH VOLTAGE OUT
H.V DISTRIBUTOR AXW1047
H.V DRIVE
+210V REGULATOR
V.PULSE GEN
V.Def CONTROL
V.Def OUT
P.K PULSE GEN
AFC PLL H.V OSC
H.BLK PULSE GENERATOR
H.def DRIVE
H.def OUT
H.def CONTROL
CONVER u-COM PD5564
EEP ROM 128K
EEP ROM 8K
DIGITAL CONVERGENCE
H.PULSE CANCELER
HV PARA GEN.
CONVER GENCE OUT
H.PHASE CONTROL
PLL
V.BLK GEN
SHARPNESS CONTROL
SCREEN
FOCUS
V.M
CONV H/V
Def H/V
ANODE RGB
AUTO CONVER
PIN KEY
HV PARA
P.D
CPU.R

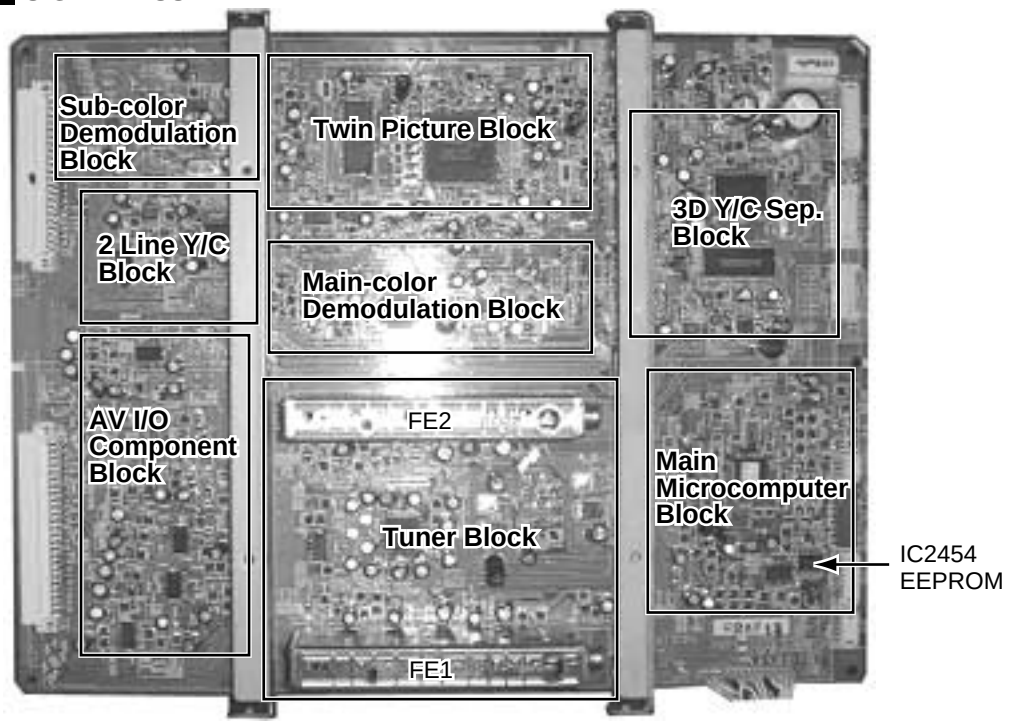
3.1.2 CONTROL BLOCK



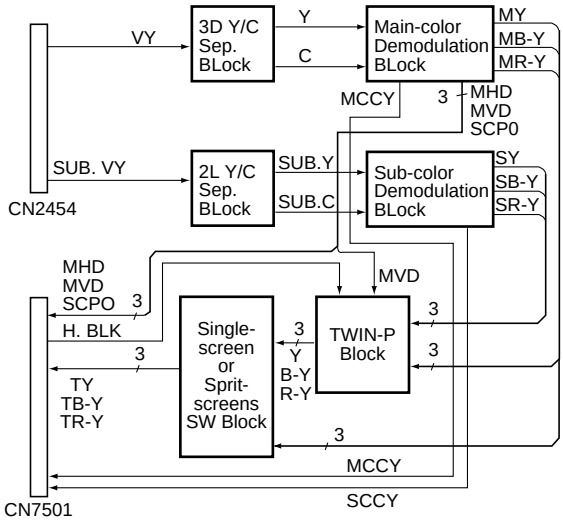

IC7103
IC7303
CCY SW
NJM2233
MCOMP.SW
SCOMP.SW
SCCY
MCCY
TWIN
PICTURE
BLOCK
RS
SCL3
SDA3
PASS
CLK
DATA
G.ENB
G.RST
DH.BLK
V.BLK0
V.BLK2
SYNC
BLOCK
P_CLK
P_DATA
P_RST
P_BUSY
P_ERR
PLL_CLK
PLL_DATA
PLL_ENB
PROGRESSIVE
BLOCK
VS
HS
VIDEO EQ/CP
SHARPNESS
FLESH TONE
BLOCK
OSD BLK
OSD HALF
AUX.SW
RGB.SEL
BLACKSW
SHARPSW
FLESH_TONE
VMCTL
SHARPNESS
DETAIL
EQ.SW
IC2203
RESET IC
PST9146
IC2201
SUB u-COM
PD5718A
S_CLK
S_DATA
S_ENB
S_BUSY
RESET
IC4304
DAC IC
CXA1315
H.SIZE.ADJ
H.PHA.ADJ
SCL2
SDA2
IC5254
DAC IC
CXA1315
V.SIZE.ADJ
CC1-R
CC1-G
CC1-B
CC1-BLK
IC2205
CCD SW
74HC157
CV-R
CV-G
CV-B
CV-BLK
R.MUTE
G.MUTE
B.MUTE
PANEL_WIDTH
PANEL_POS
ACL
LIN.WHITE
ASPECT.SW
CCD.R
CCD.G
CCD.B
CCD.BLK
IC2204
OSD IC
PD0264A
OSD.DATA
OSD.CLK
OSD.ENB
OSD.R
OSD.G
OSD.B
OSD.BLK
OSD.HALF
VIDEO
BLOCK
V.MUTE
A.MUTE1
A.MUTE2
AUDIO
BLOCK
REM OUT
REM IN
SR
KEY
DPO
TMR LED
DTV LED
LED ON/OFF
FRONT
BLOCK
H.DEF
BLOCK
H.OSC.SW
REM IN

3.1.3 SIGNAL ASSY

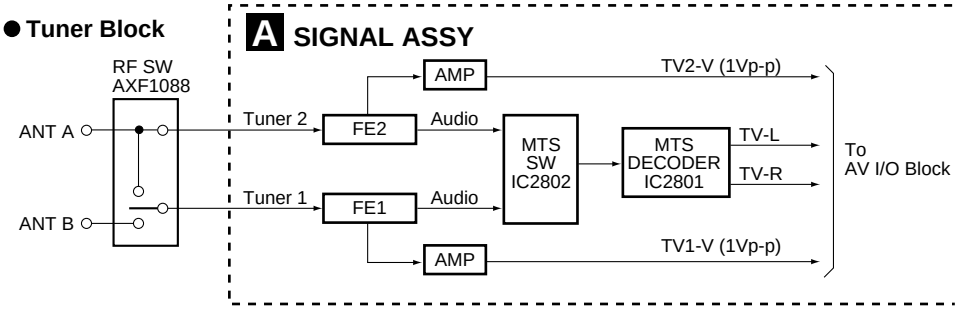
A SIGNAL ASSY



● **Video Block**



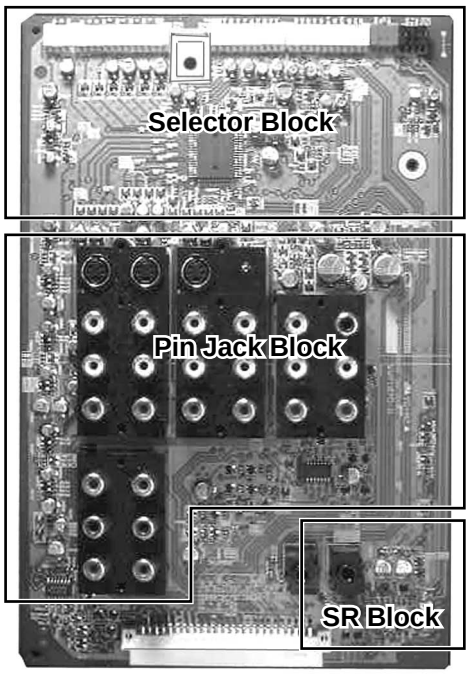
● **Tuner Block**



Note :
Main picture is able to receive the ANT A and B.
Sub picuture is able to receive the ANT A only.

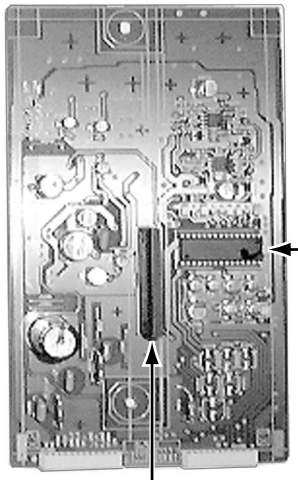
3.1.4 AV I/O and AUDIO ASSYS

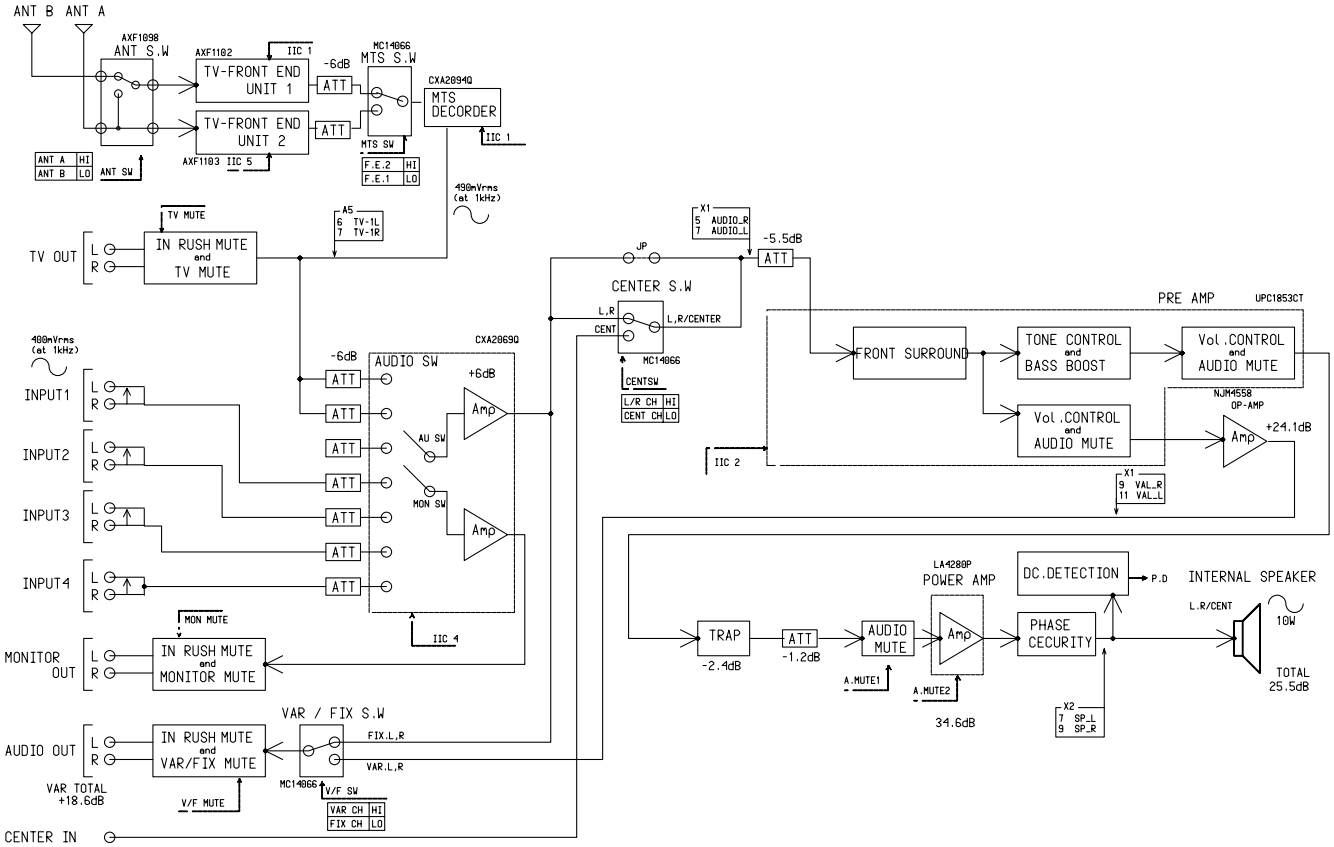
B AV I/O ASSY



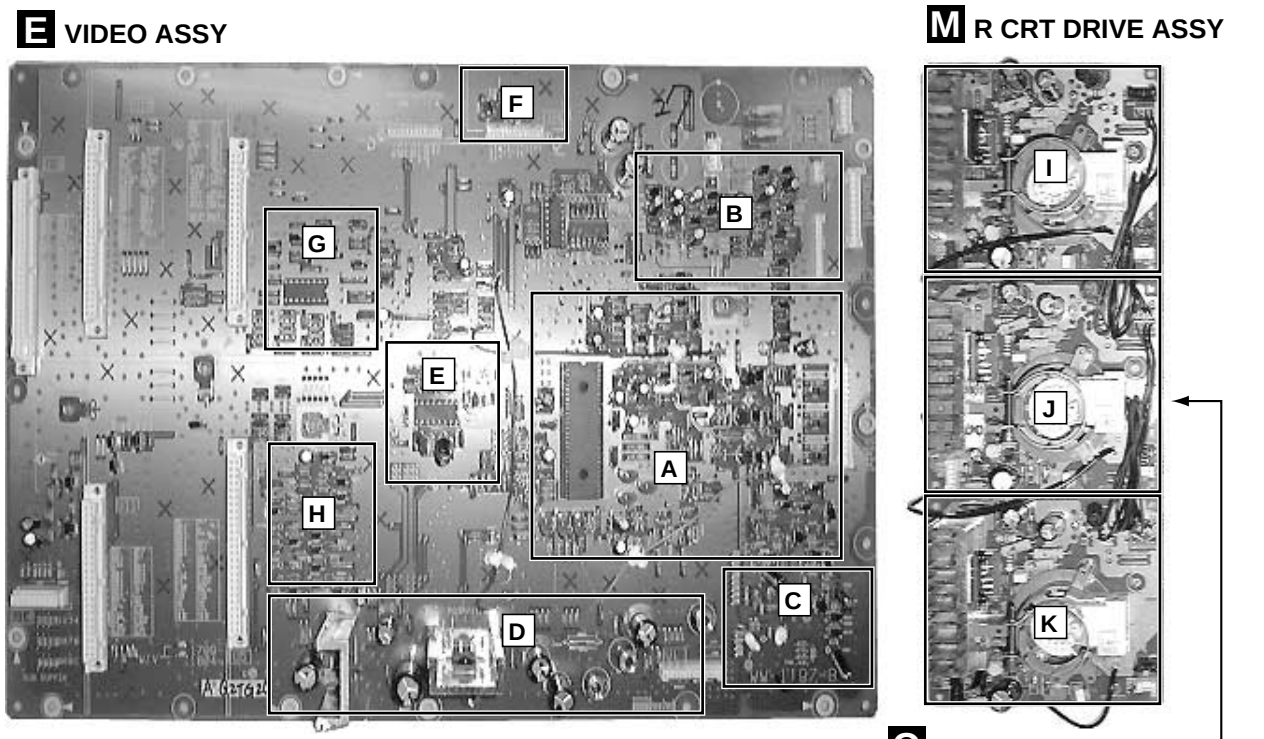
NOTE) The AUDIO Assy show the state without the heat sink.
Please attach the heat sink when you install the AUDIO Assy.

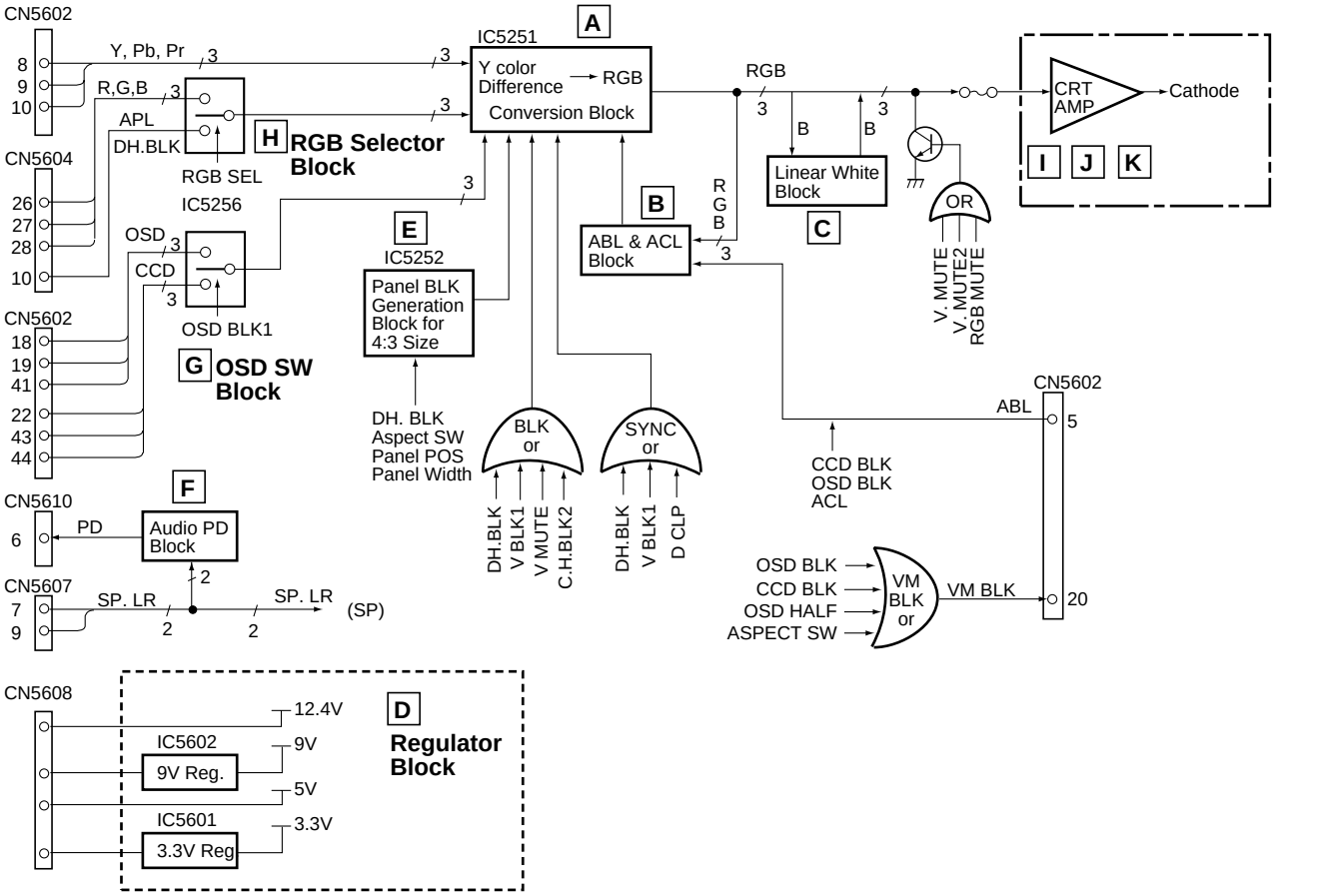
G AUDIO ASSY



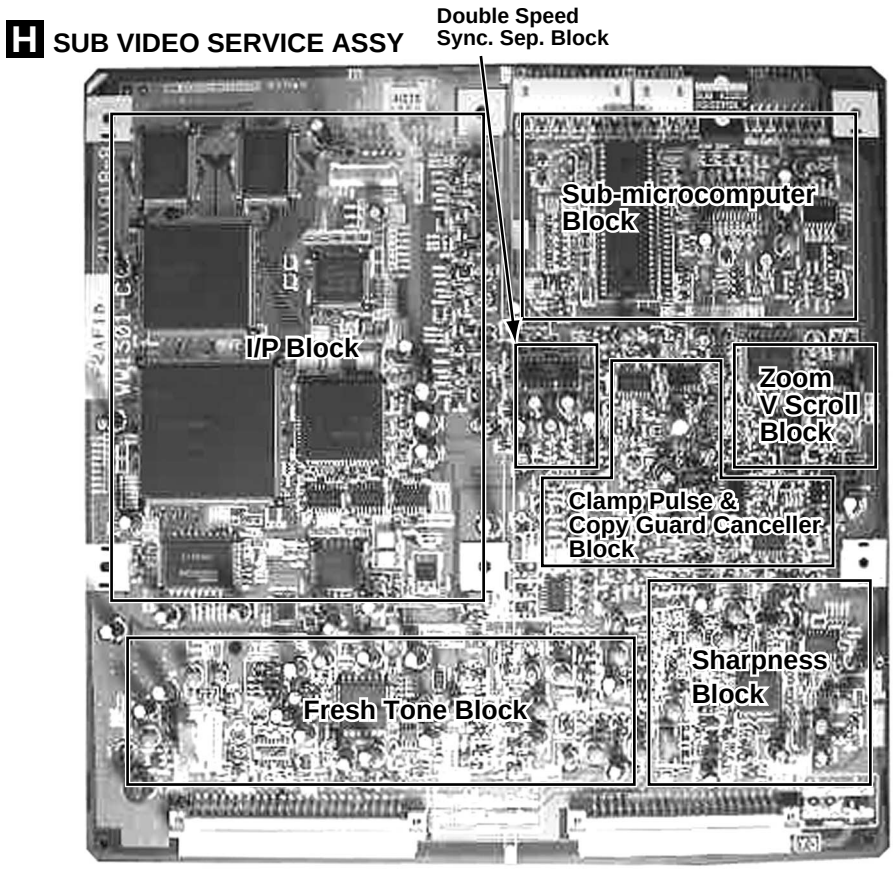


3.1.5 VIDEO, R, G and B CRT DRIVE ASSYS

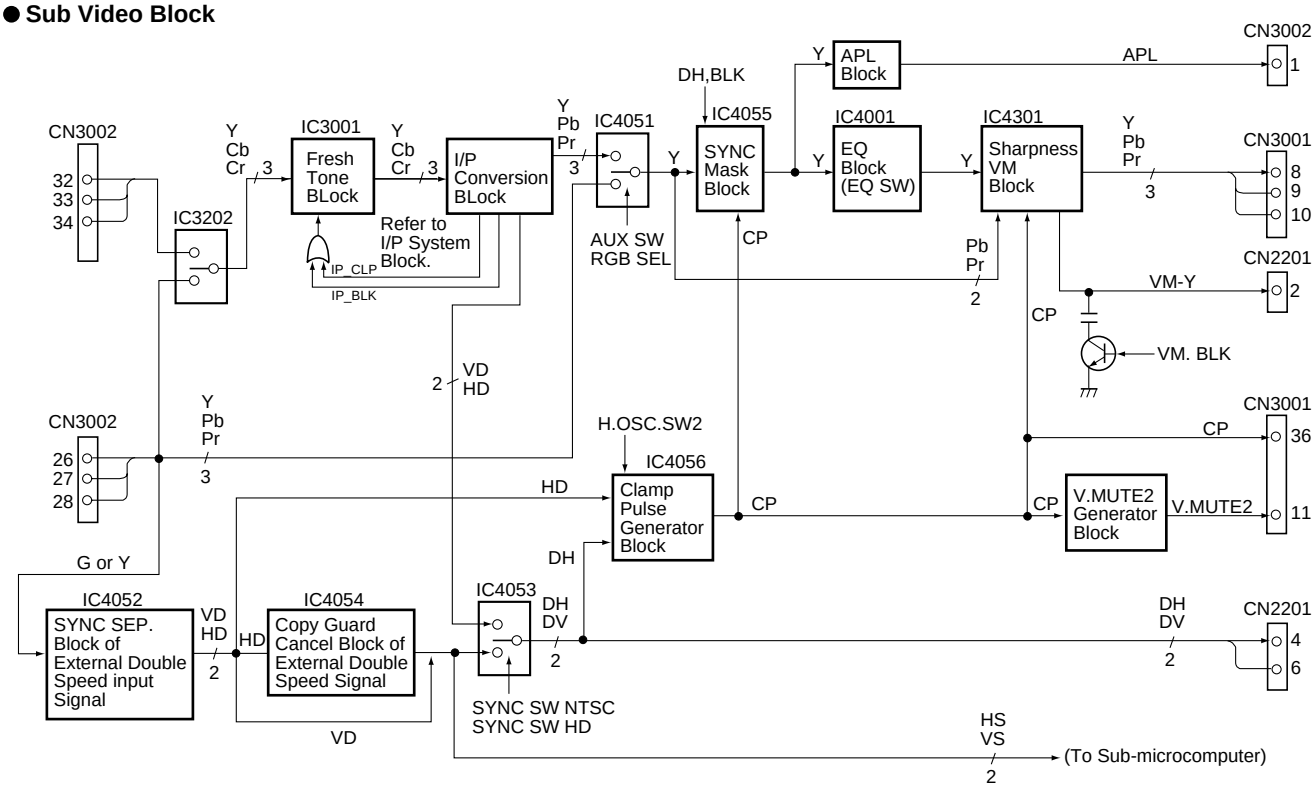




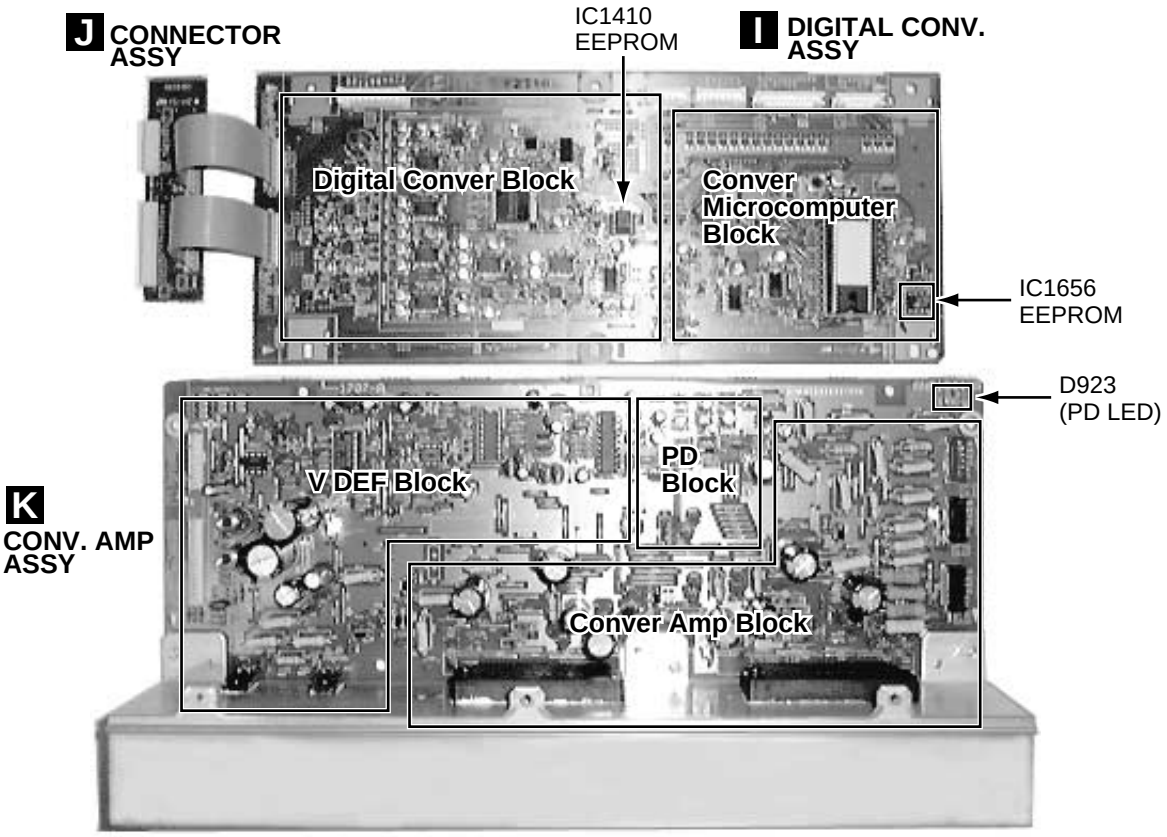
3.1.6 SUB VIDEO SERVICE ASSY

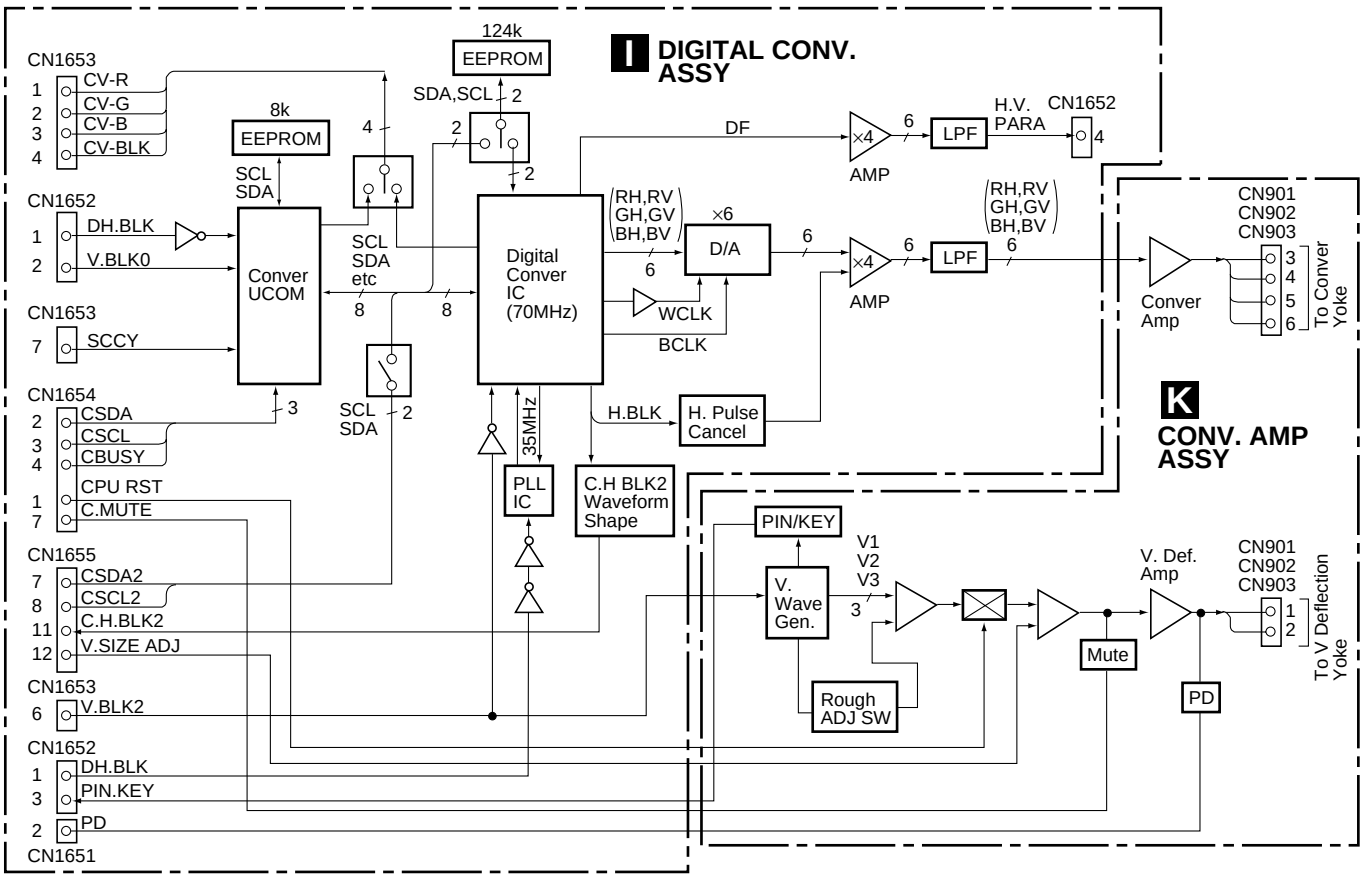


● **Sub Video Block**



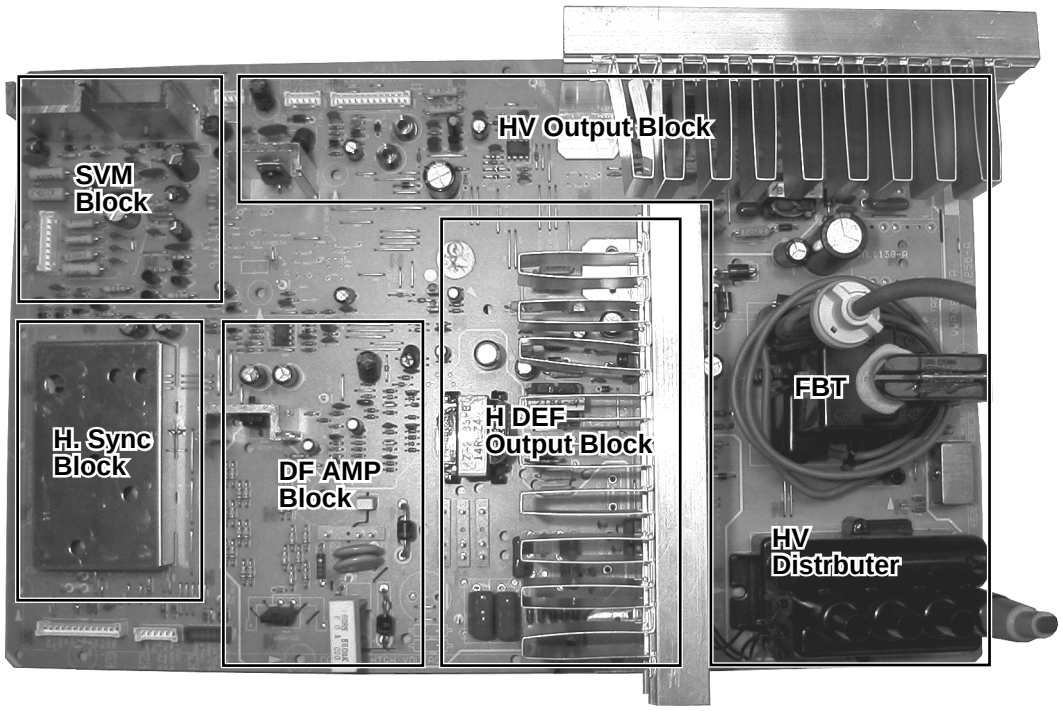
3.1.7 DIGITAL CONV., CONNECTOR and CONV. AMP ASSYS

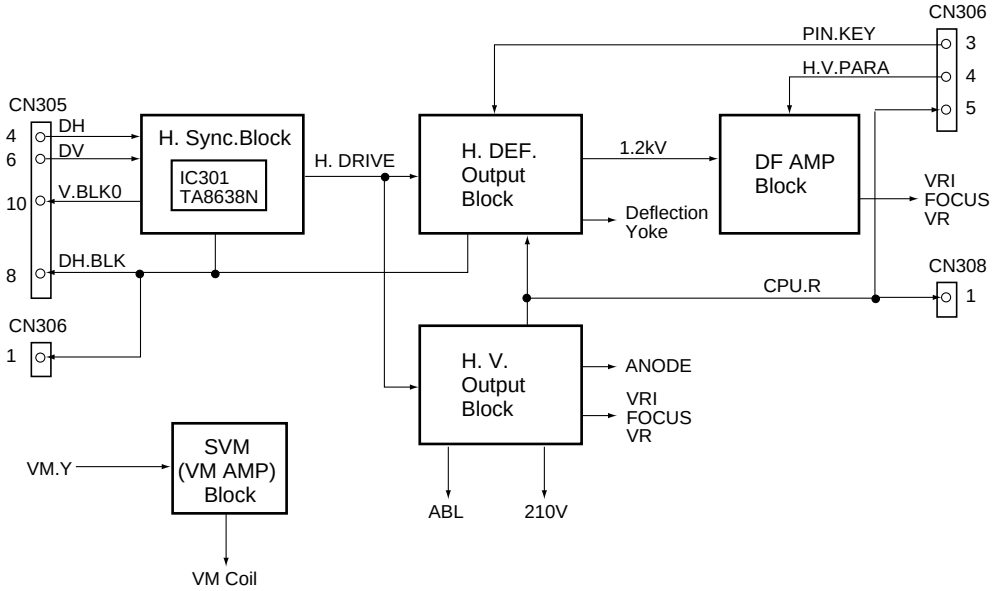




3.1.8 DEFLECTION SERVICE ASSY

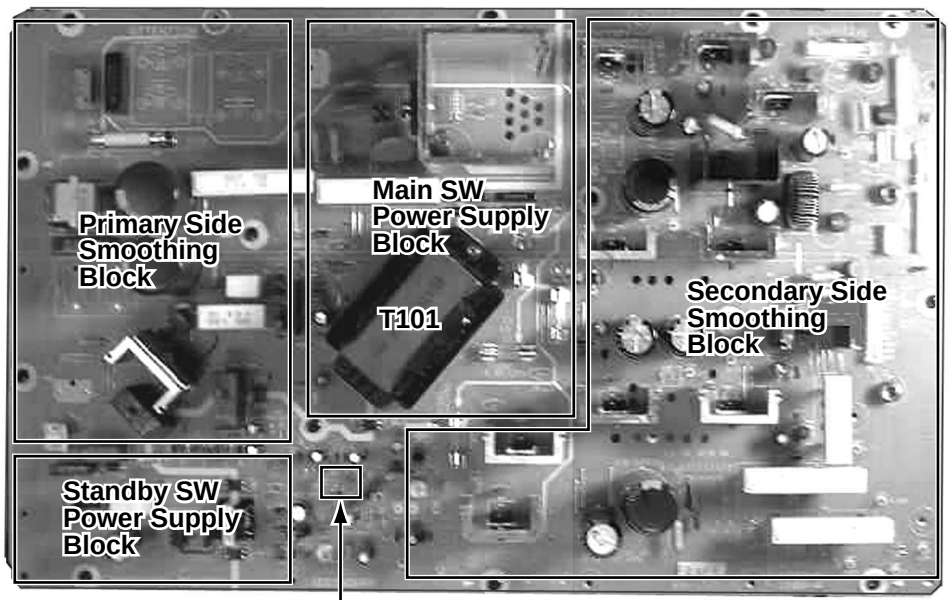
L DEFLECTION SERVICE ASSY

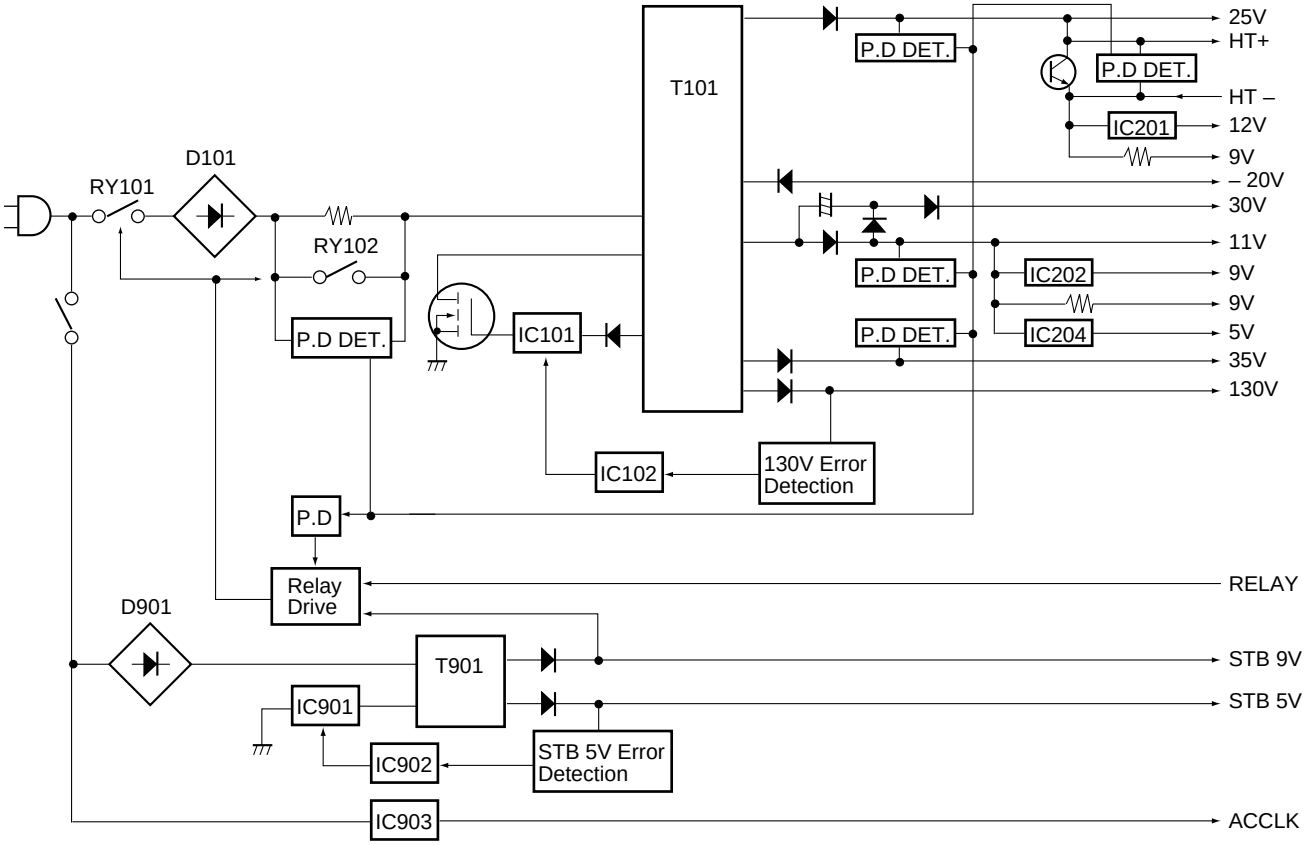




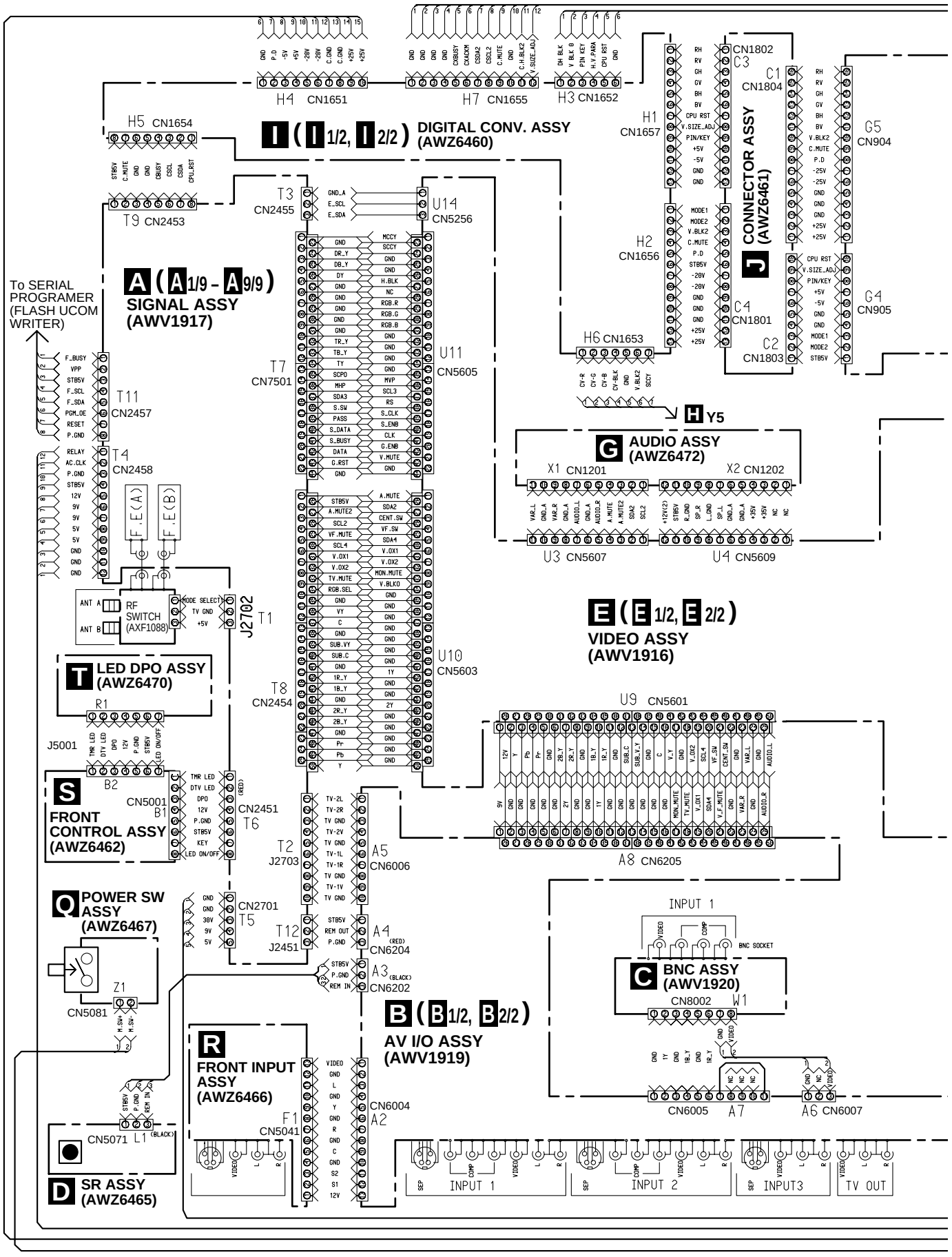
3.1.9 POWER SUPPLY ASSY

P POWER SUPPLY ASSY

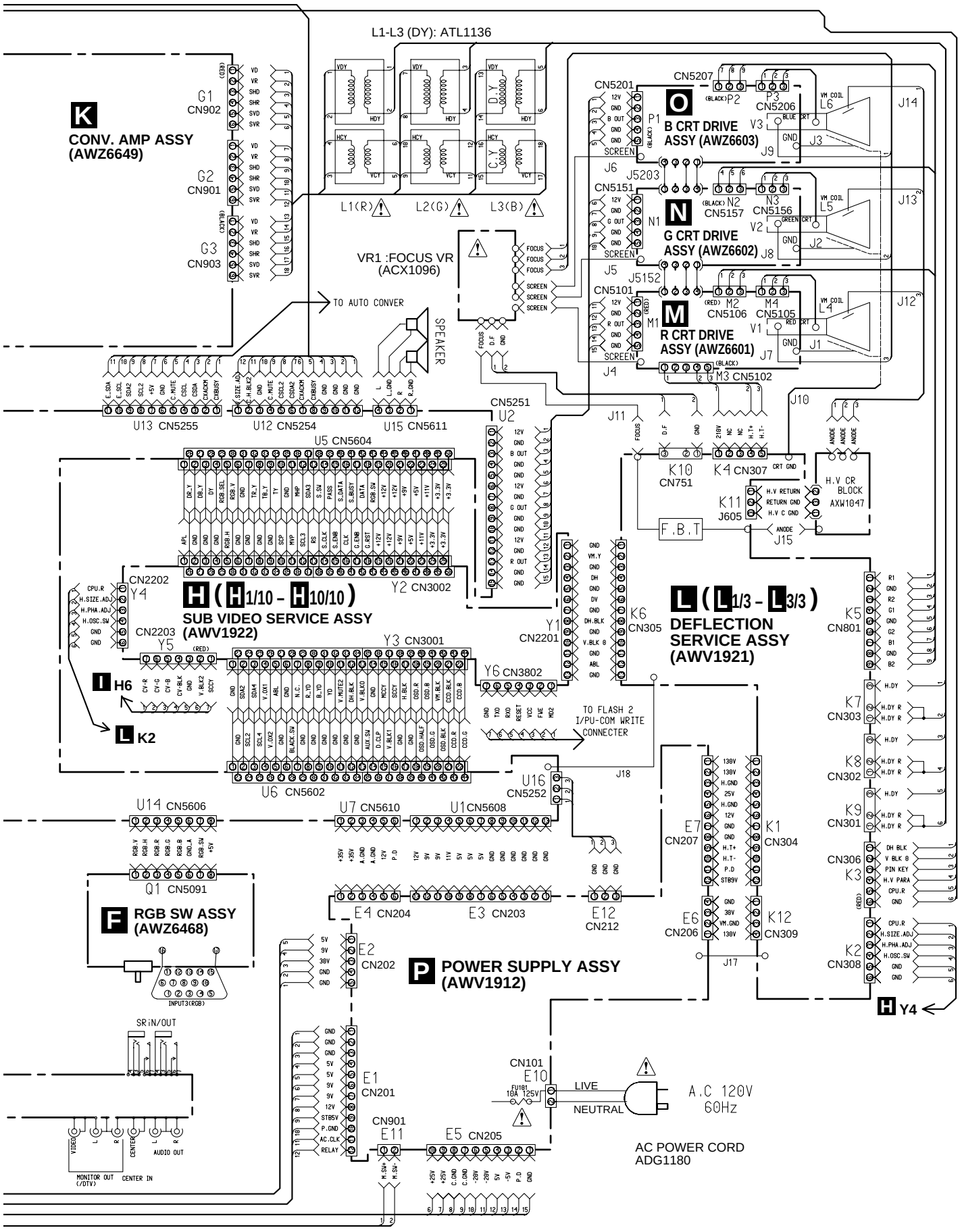




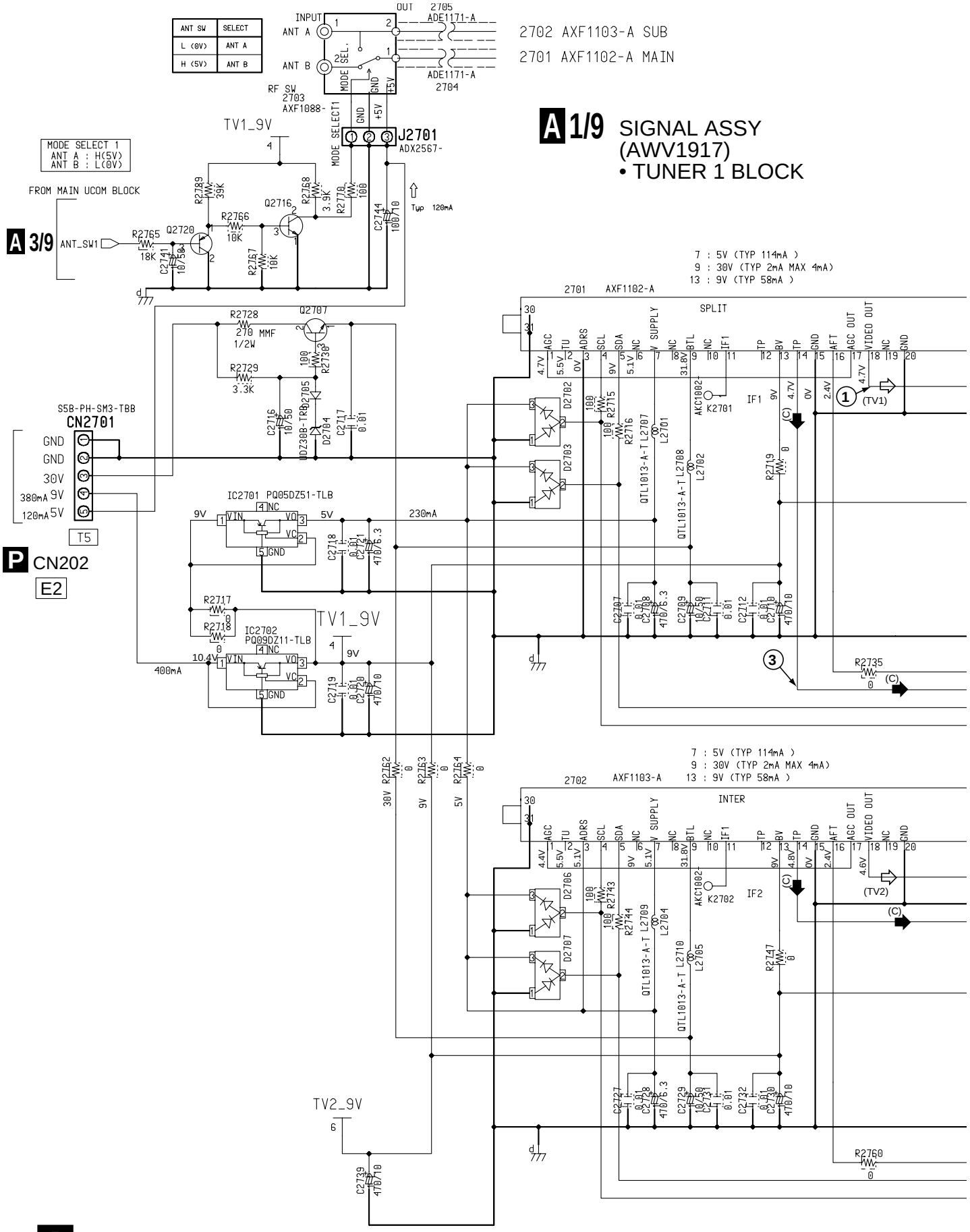
3.2 OVERALL CONNECTION DIAGRAM



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



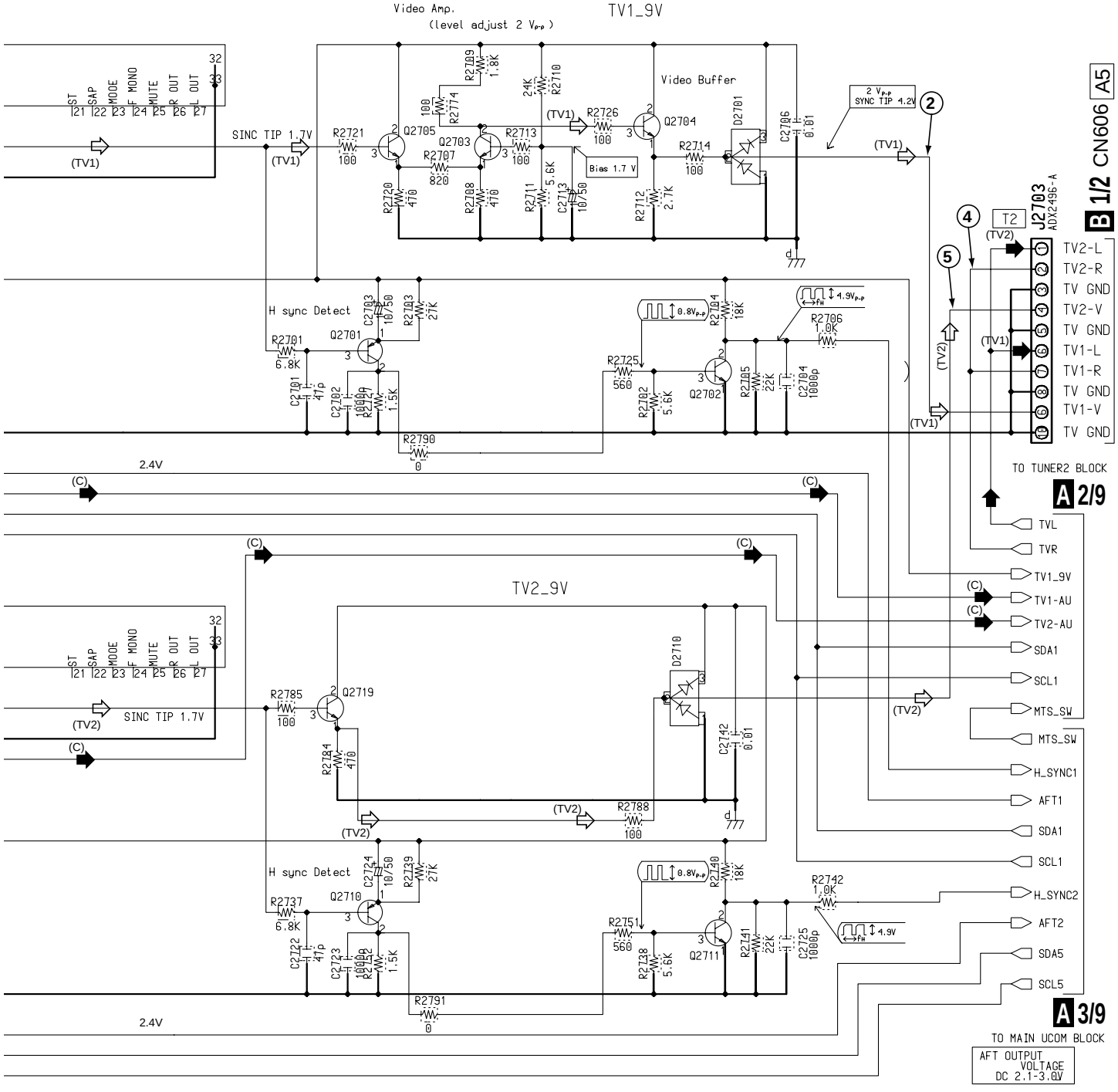
3.3 SIGNAL ASSY (1/9)



Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k kΩ
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

2SA1162(YGR)-TLB
2SC2712(YGR)-TLB
1SS352-TRB
1SS226-TRB

(C) : COMPOSITE AUDIO SIGNAL ROUTE
(TV1) : VIDEO SIGNAL ROUTE (TV1)
(TV2) : VIDEO SIGNAL ROUTE (TV2)
: AUDIO SIGNAL ROUTE
(TV1) : AUDIO SIGNAL ROUTE (TV1)
(TV2) : AUDIO SIGNAL ROUTE (TV2)



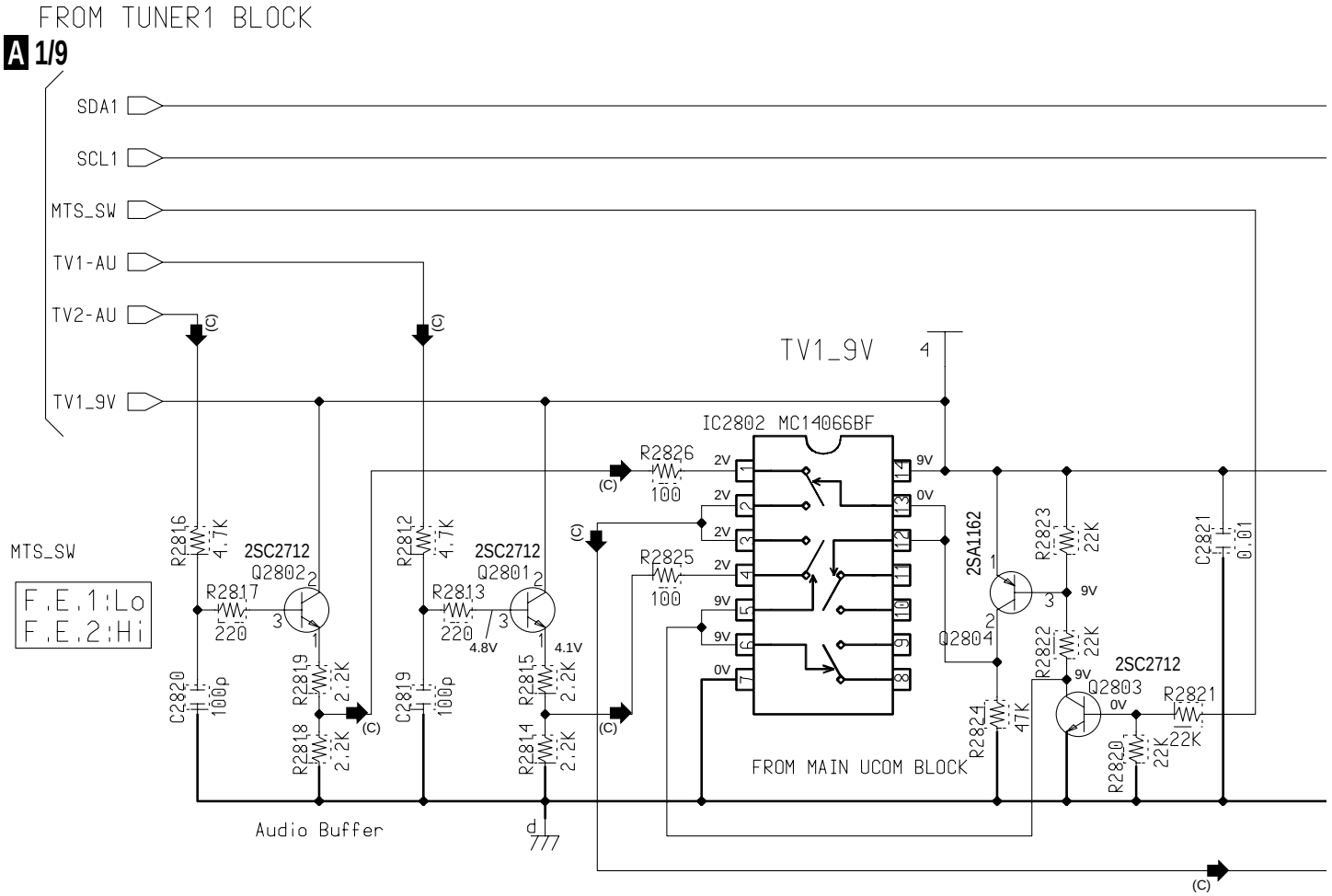
B 1/2 CN606 A5

A 1/9

3.4 SIGNAL ASSY (2/9)

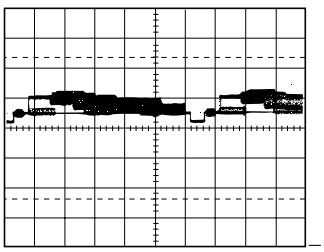
A 2/9 SIGNAL ASSY
(AWV1917)
• TUNER 2 BLOCK

(C) ➡ : COMPOSITE AUDIO SIGNAL ROUTE
➡ : AUDIO SIGNAL ROUTE

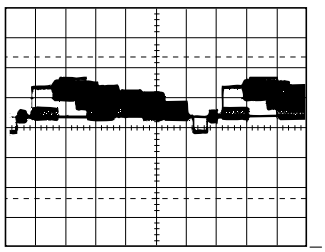


A 1/9

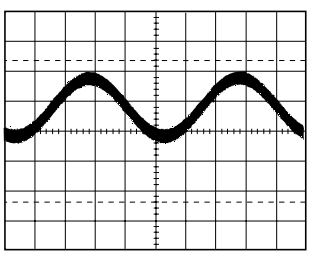
① 2701-pin 18
V: 1V/div. H: 10µsec/div.

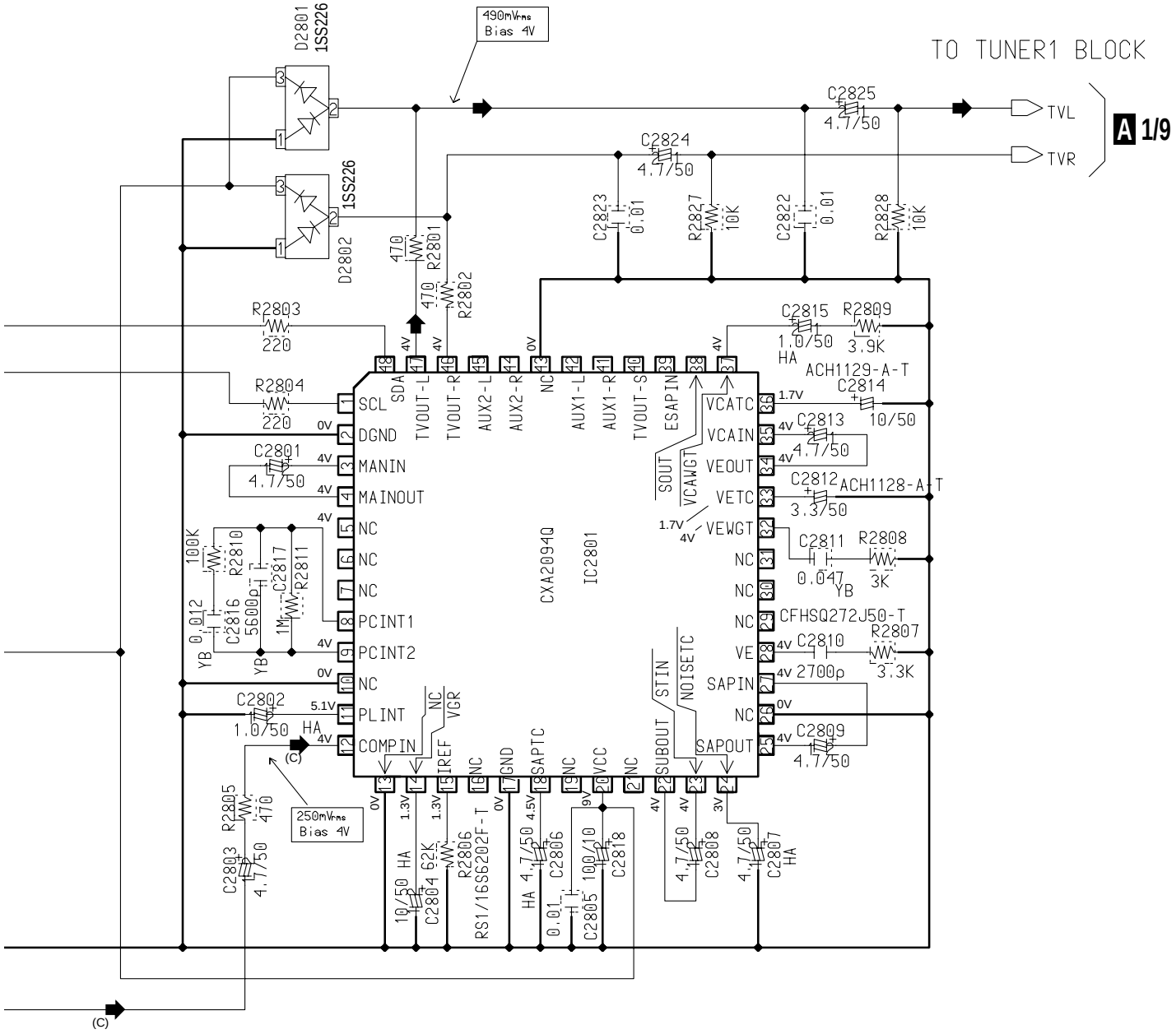


② J2703-pin 9
V: 1V/div. H: 10µsec/div.

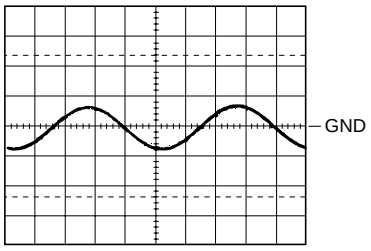


③ 2701-pin 14
V: 1V/div. H: 200µsec/div.

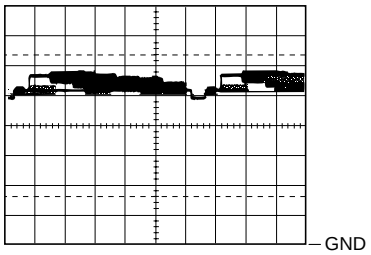




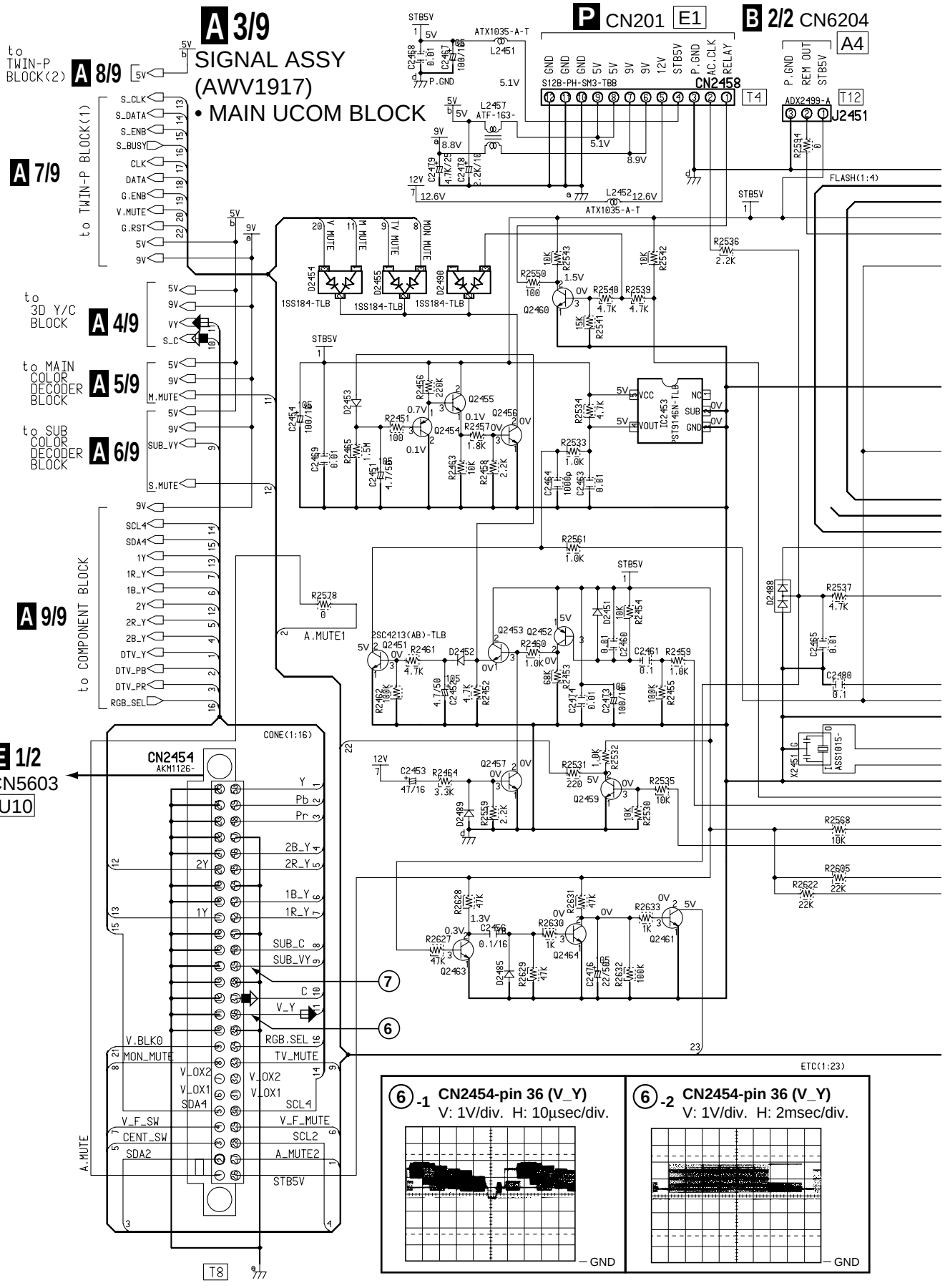
④ **J2703-pin 2, 7**
V: 1V/div. H: 200µsec/div.

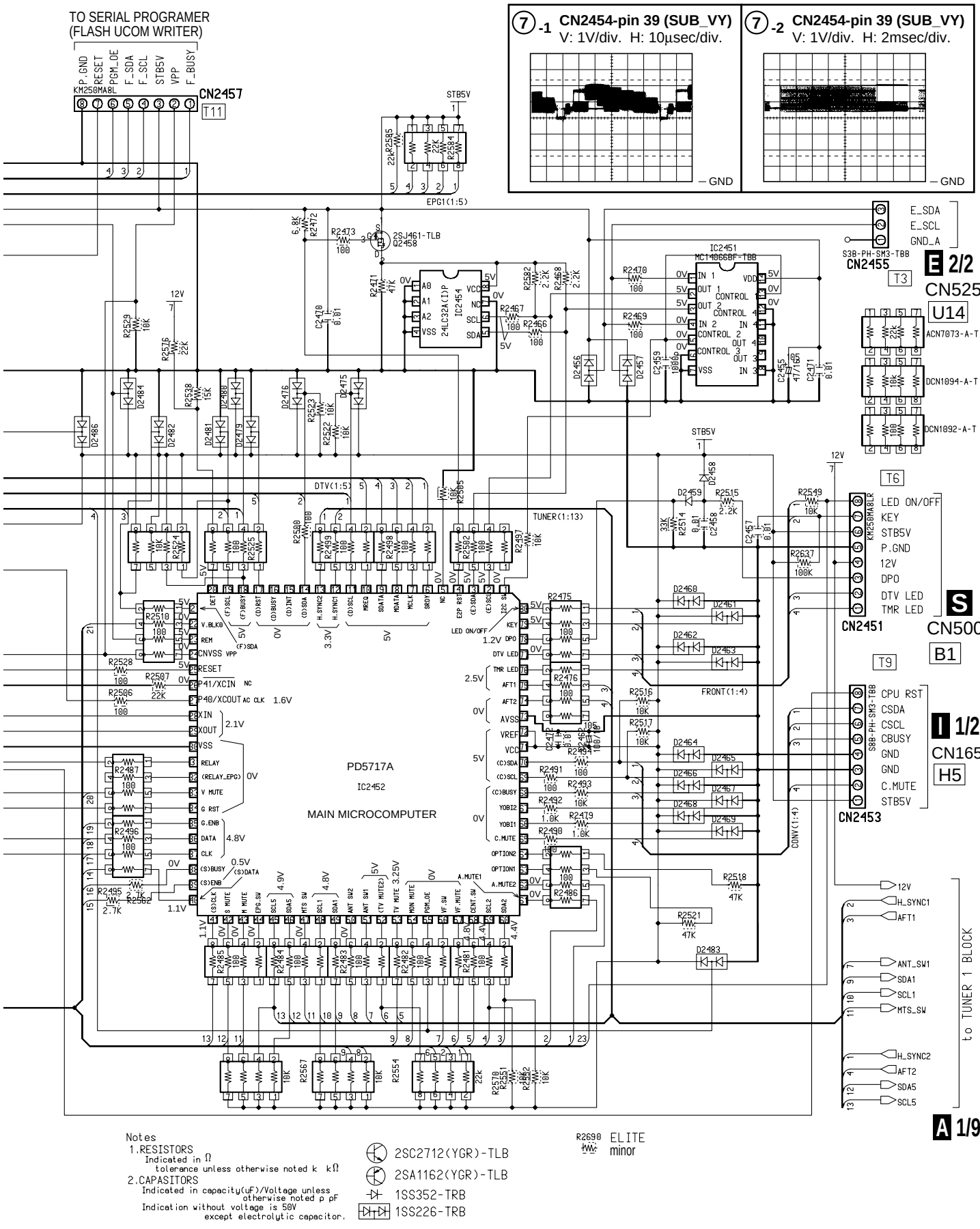


⑤ **J2703-pin 4**
V: 1V/div. H: 10µsec/div.



3.5 SIGNAL ASSY (3/9)



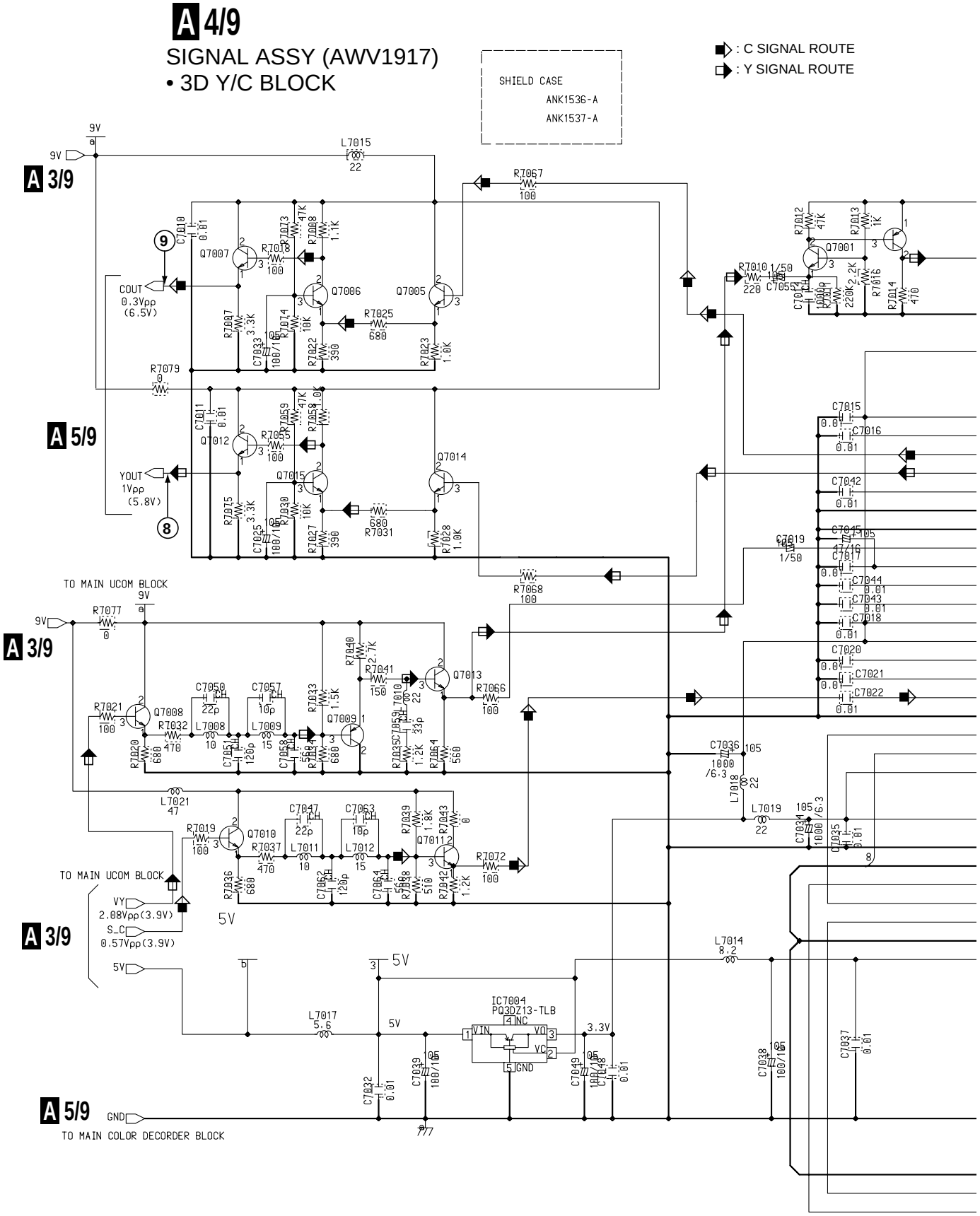


Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k kΩ
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF
Indication without voltage is 50V
except electrolytic capacitor.

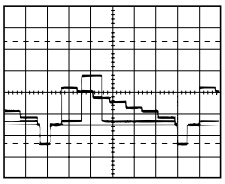
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS352-TRB
1SS226-TRB

R2690 ELITE
minor

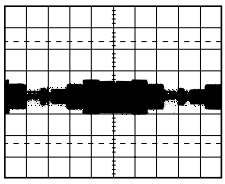
3.6 SIGNAL ASSY (4/9)

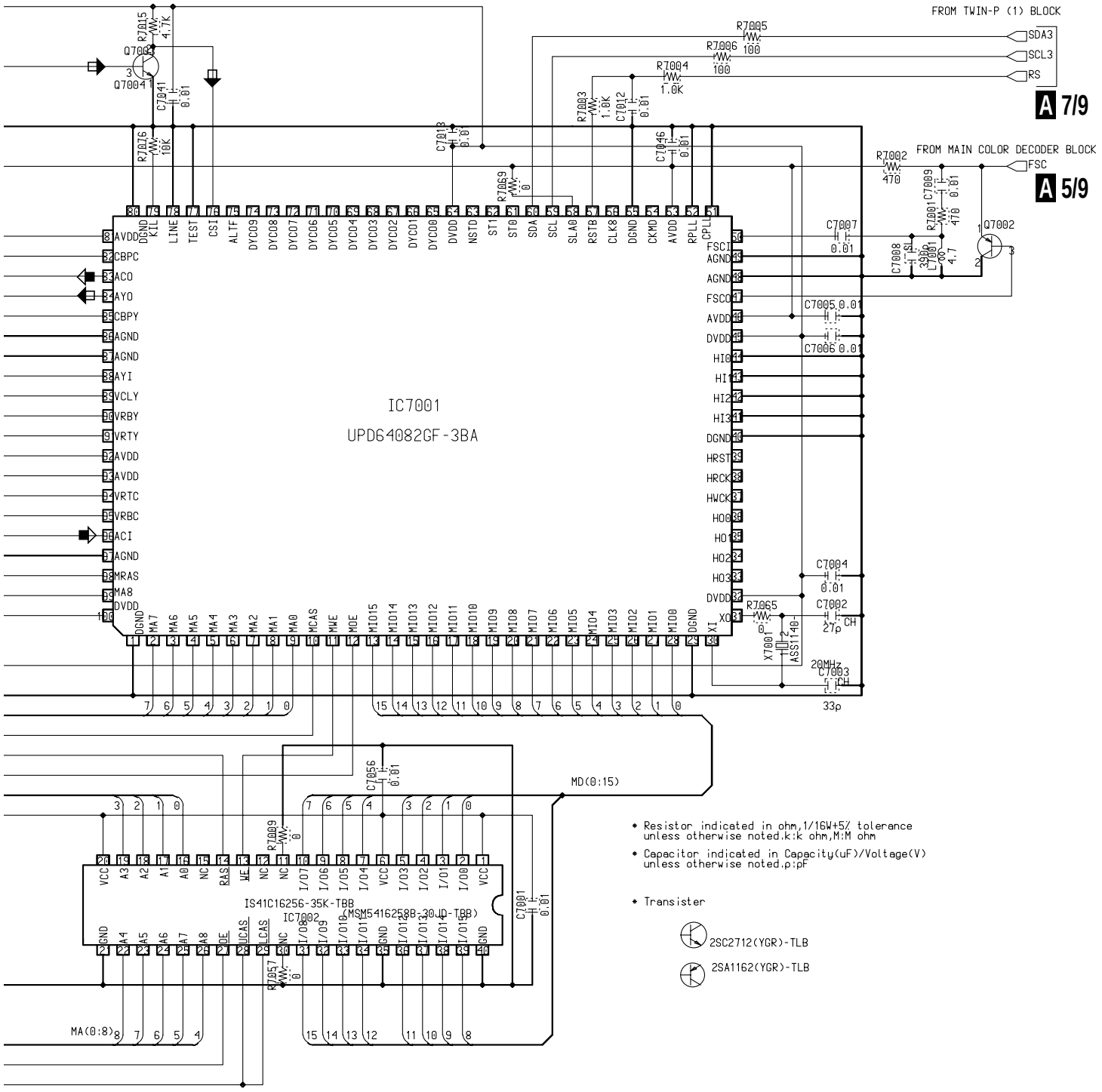


⑧ Q7012 (Y)
V: 0.5V/div. H: 10µsec/div.



⑨ Q7007 (C)
V: 0.5V/div. H: 10µsec/div.

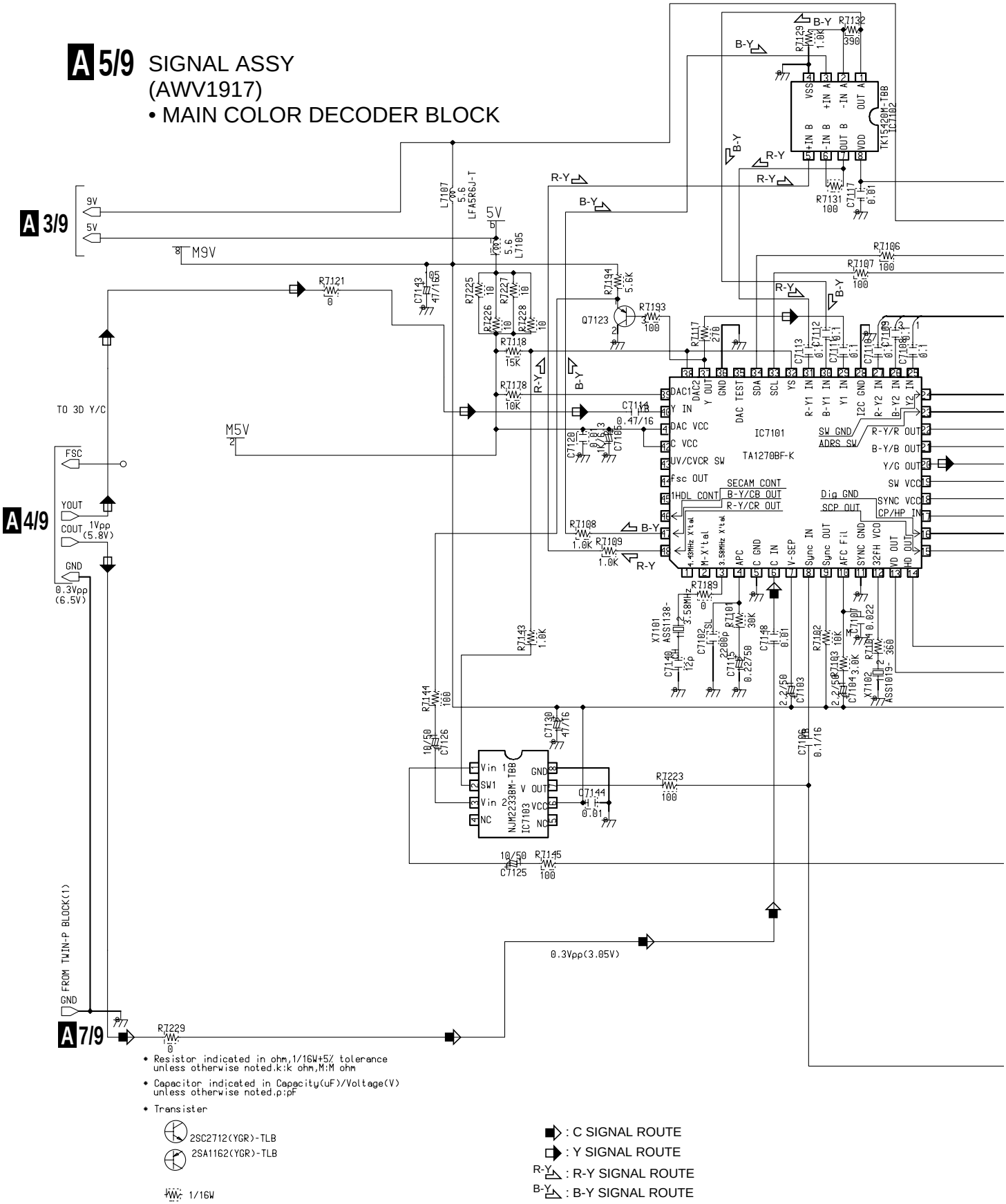




- Resistor indicated in ohm,1/16W+5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF
- Transister

3.7 SIGNAL ASSY (5/9)

A 5/9 SIGNAL ASSY
(AWV1917)
• MAIN COLOR DECODER BLOCK



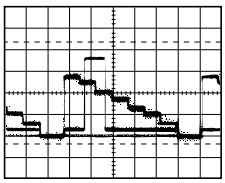
- Resistor indicated in ohm,1/16W±5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF
- Transister

2SC2712(YGR)-TLB
2SA1162(YGR)-TLB

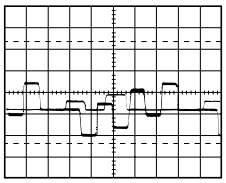
1/16W

: C SIGNAL ROUTE
: Y SIGNAL ROUTE
R-Y : R-Y SIGNAL ROUTE
B-Y : B-Y SIGNAL ROUTE

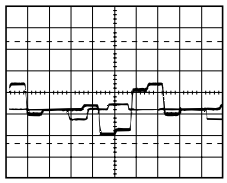
⑩ Q7115-Emitter (MY) (AC)
V: 0.2V/div. H: 10µsec/div.

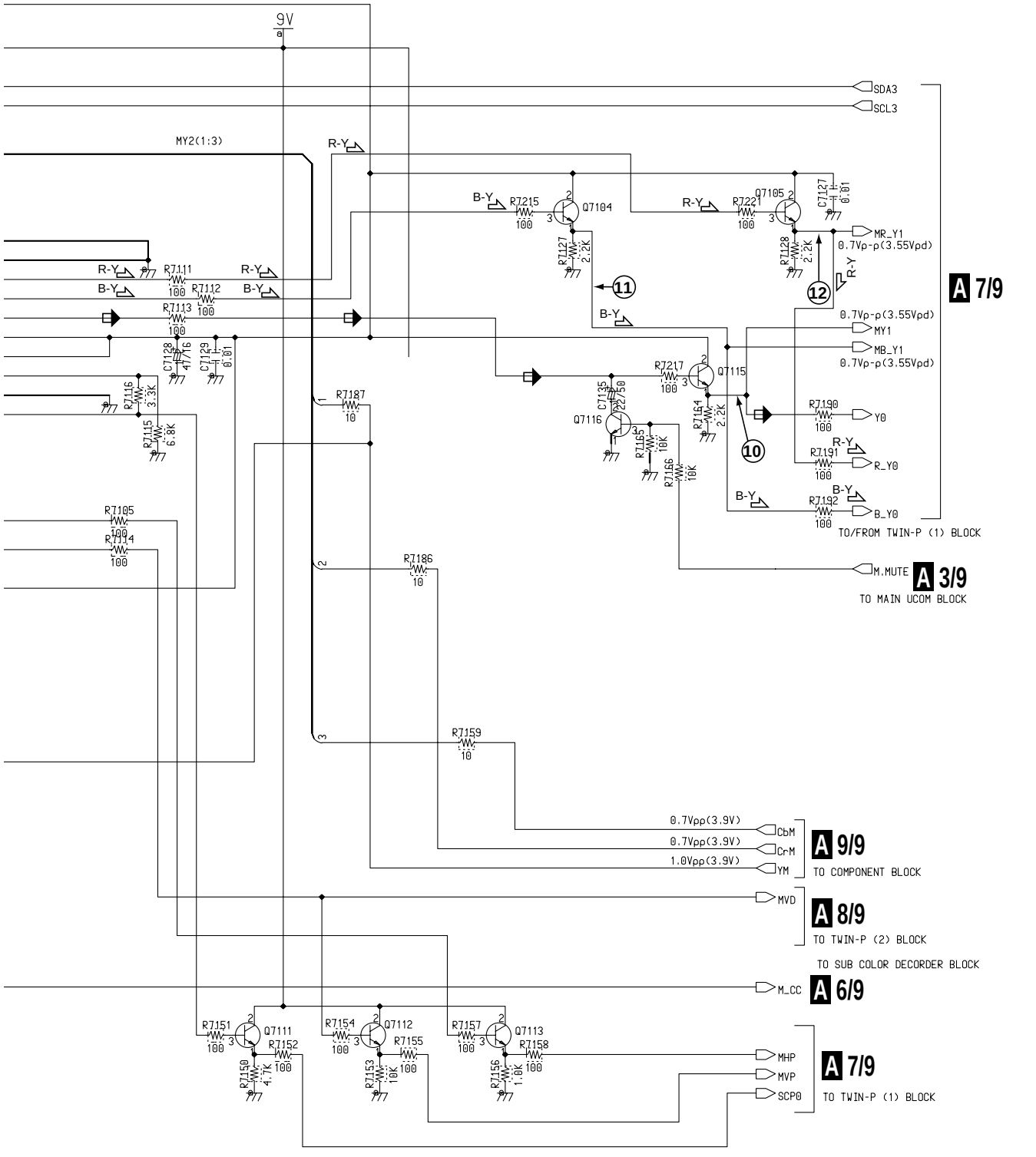


⑪ Q7104-Emitter (MB-Y) (AC)
V: 0.2V/div. H: 10µsec/div.

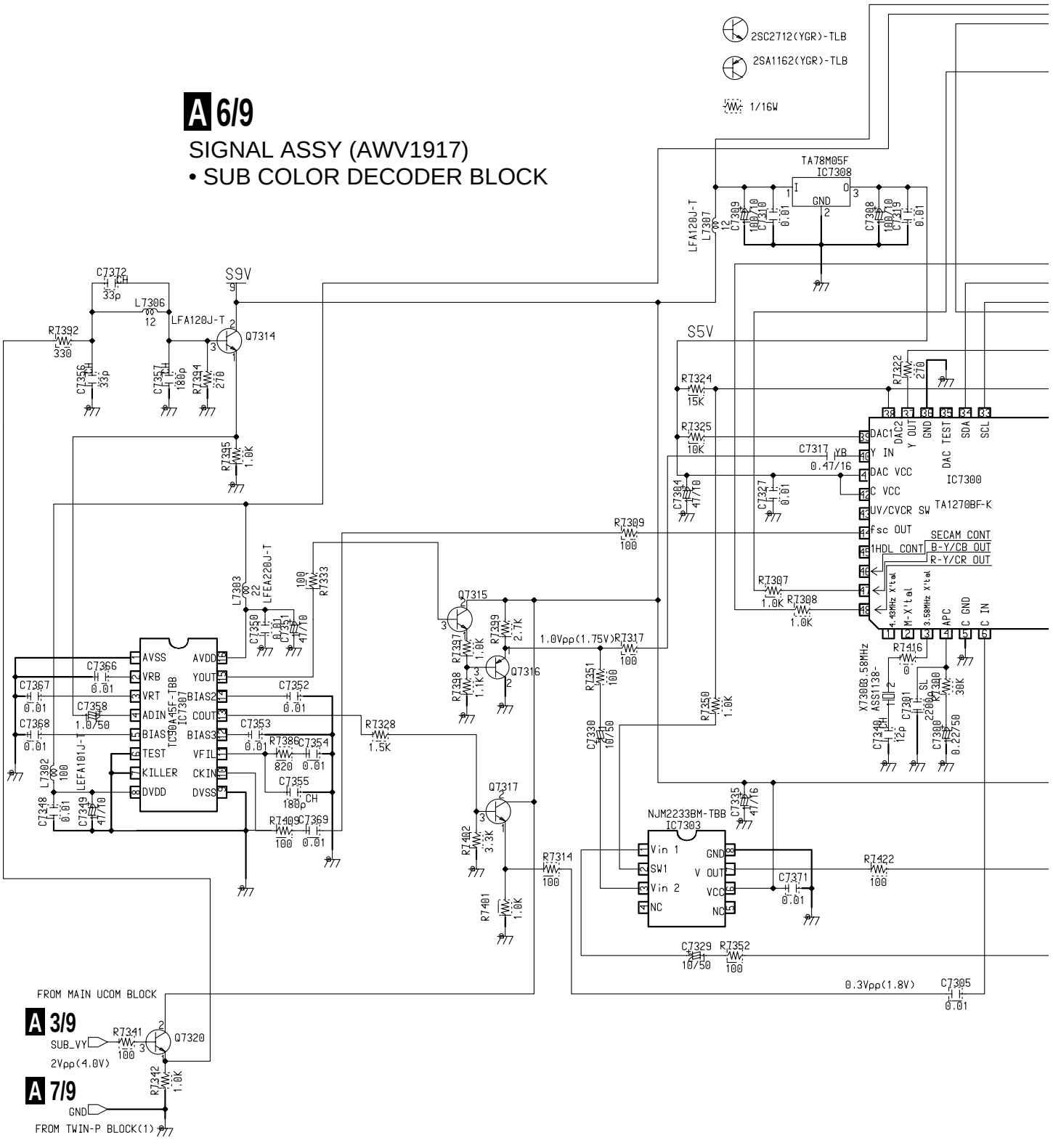


⑫ Q7105-Emitter (MR-Y) (AC)
V: 0.2V/div. H: 10µsec/div.

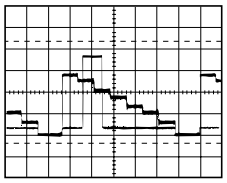




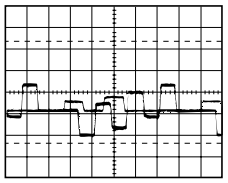
3.8 SIGNAL ASSY (6/9)



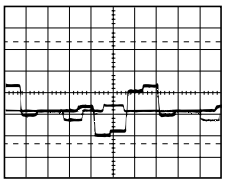
13 **Q7309-Emitter (SY) (AC)**
V: 0.2V/div. H: 10µsec/div.



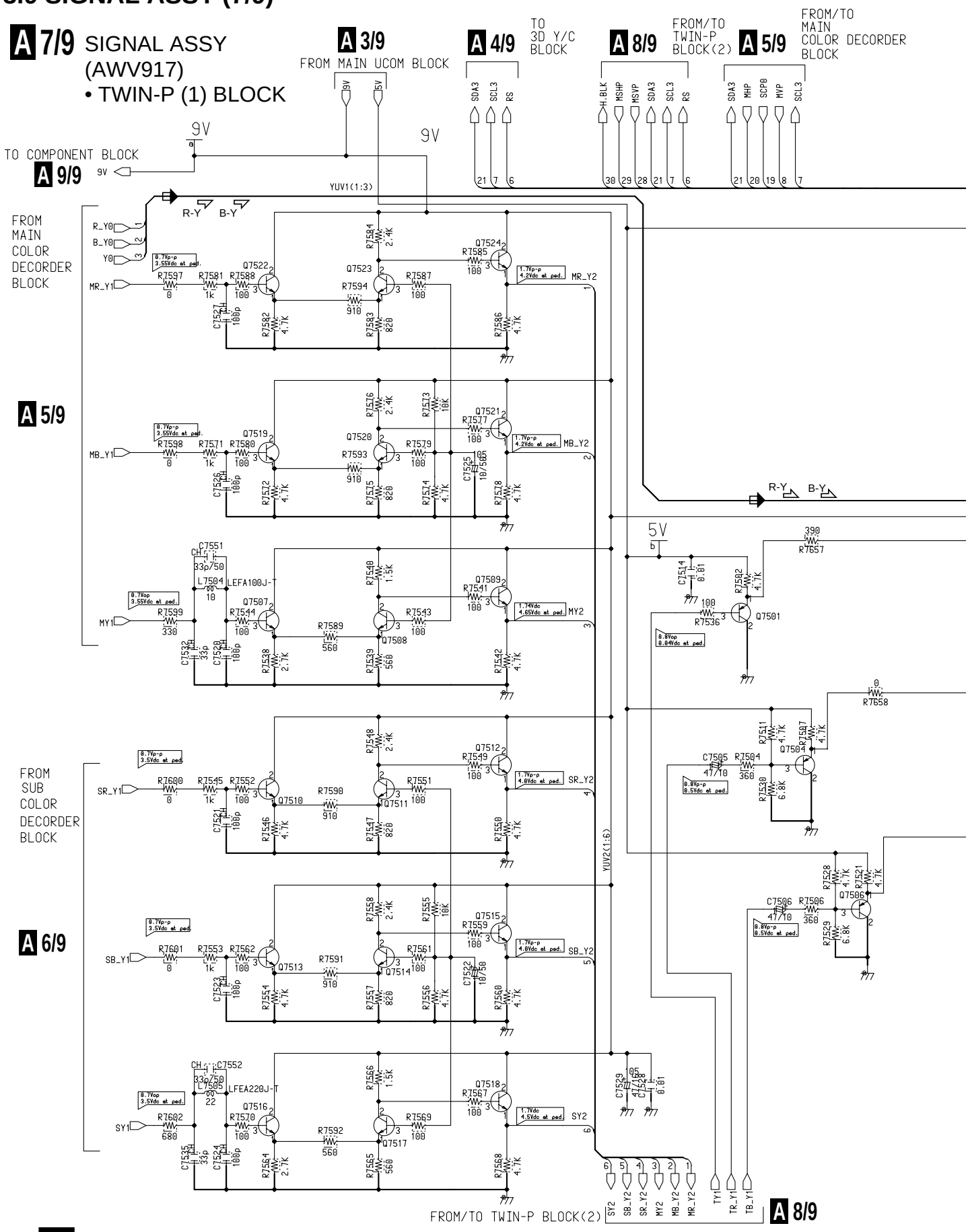
14 **Q7303-Emitter (SB-Y) (AC)**
V: 0.2V/div. H: 10µsec/div.

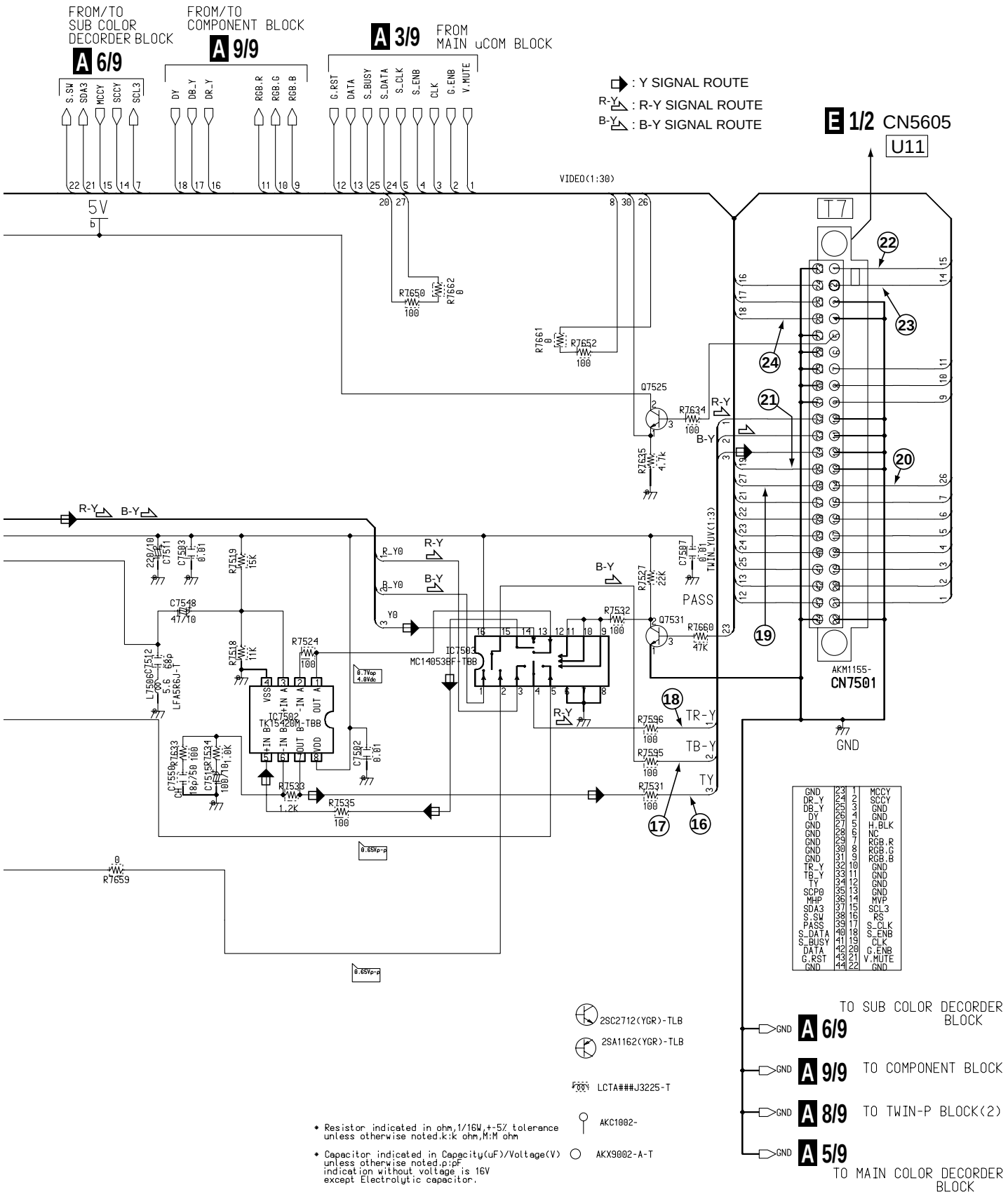


15 **Q7304-Emitter (SR-Y) (AC)**
V: 0.2V/div. H: 10µsec/div.



3.9 SIGNAL ASSY (7/9)

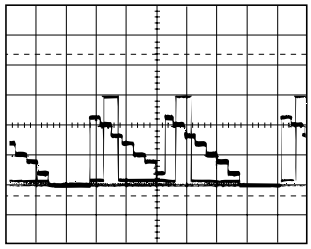



FROM/TO SUB COLOR DECORDER BLOCK
A 6/9
FROM/TO COMPONENT BLOCK
A 9/9
A 3/9 FROM MAIN uCOM BLOCK
S.SW
SDA3
MCCY
SCCY
SCL3
DY
DB_Y
DR_Y
RGB.R
RGB.G
RGB.B
G.RST
DATA
S_BUSY
S_DATA
S_CLK
S_ENB
CLK
G.ENB
V.MUTE
: Y SIGNAL ROUTE
R-Y : R-Y SIGNAL ROUTE
B-Y : B-Y SIGNAL ROUTE
E 1/2 CN5605
U11
VIDEO(1:30)
5V
R7650
R7662
R7661
R7652
Q7525
R7634
R7635
T7
22
23
24
21
20
19
18
17
16
R-Y
B-Y
C7511
C7503
R7519
C7548
R7518
R7524
IC7501
MC14053BF-TBB
IC7502
TK15420M-TBB
C7512
L7506
C7550
R7633
C7515
R7534
R7533
R7535
C7502
R7532
Q7531
R7660
R7527
C7507
TWIN_YUV(1:3)
PASS
R7596
R7595
R7531
TR-Y
TB-Y
TY
AKM1155-
CN7501
GND
R7659
0.7Vpp
4.0Vdc
0.65Vp-p
GND 23 1 MCCY
DR_Y 24 2 SCCY
DB_Y 25 3 GND
DY 26 4 GND
GND 27 5 H.BLK
GND 28 6 NC
GND 29 7 RGB.R
GND 30 8 RGB.G
GND 31 9 RGB.B
TR-Y 32 10 GND
TB-Y 33 11 GND
TY 34 12 GND
SCP0 35 13 GND
MHP 36 14 MVP
SDA3 37 15 SCL3
S_SW 38 16 RS
PASS 39 17 S_CLK
S_DATA 40 18 S_ENB
S_BUSY 41 19 CLK
DATA 42 20 G.ENB
G.RST 43 21 V.MUTE
GND 44 22 GND
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
LCTA###J3225-T
AKC1002-
AKX9002-A-T
• Resistor indicated in ohm,1/16W,+-5% tolerance unless otherwise noted.k:k ohm,M:M ohm
• Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 16V except Electrolytic capacitor.
TO SUB COLOR DECORDER BLOCK
A 6/9
A 9/9 TO COMPONENT BLOCK
A 8/9 TO TWIN-P BLOCK(2)
A 5/9 TO MAIN COLOR DECORDER BLOCK

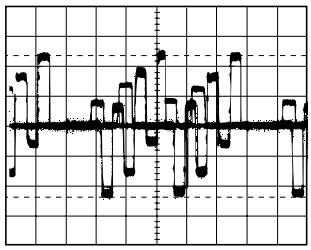
A 7/9 SIGNAL ASSY (7/9)

Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

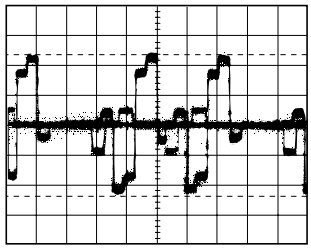
⑯ Foot of R7531 (TY) (AC)
V: 0.5V/div. H: 10µsec/div.



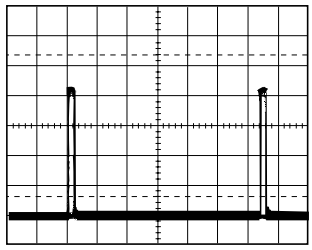
⑰ Foot of R7595 (TB-Y) (AC)
V: 0.1V/div. H: 10µsec/div.



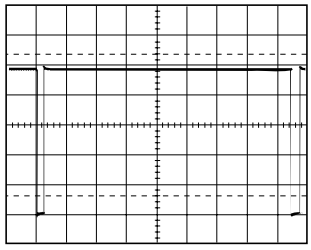
⑱ Foot of R7596 (TR-Y) (AC)
V: 0.1V/div. H: 10µsec/div.



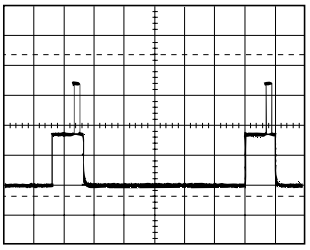
⑲ CN7501-pin 36 (MHP)
V: 1V/div. H: 10µsec/div.



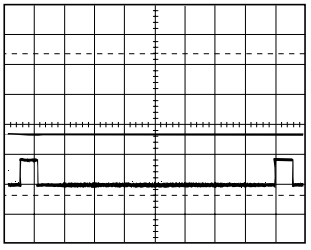
⑳ CN7501-pin 14 (MVP)
V: 1V/div. H: 2msec/div.



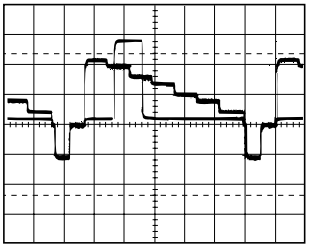
㉑-1 CN7501-pin 35 (SCP0)
V: 2V/div. H: 10µsec/div.



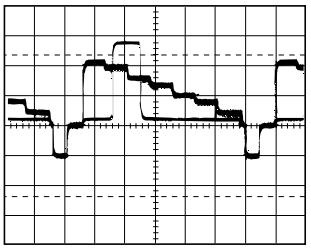
㉑-2 CN7501-pin 35 (SCP0)
V: 2V/div. H: 2msec/div.



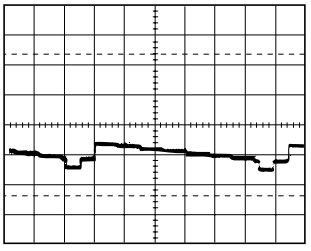
㉒ CN7501-pin 1 (MCCY)
V: 0.5V/div. H: 10µsec/div.



㉓ CN7501-pin 2 (SCCY)
V: 0.5V/div. H: 10µsec/div.



㉔ CN7501-pin 26 (DYOUT)
V: 1V/div. H: 10µsec/div.



A 7/9 SIGNAL ASSY (7/9)

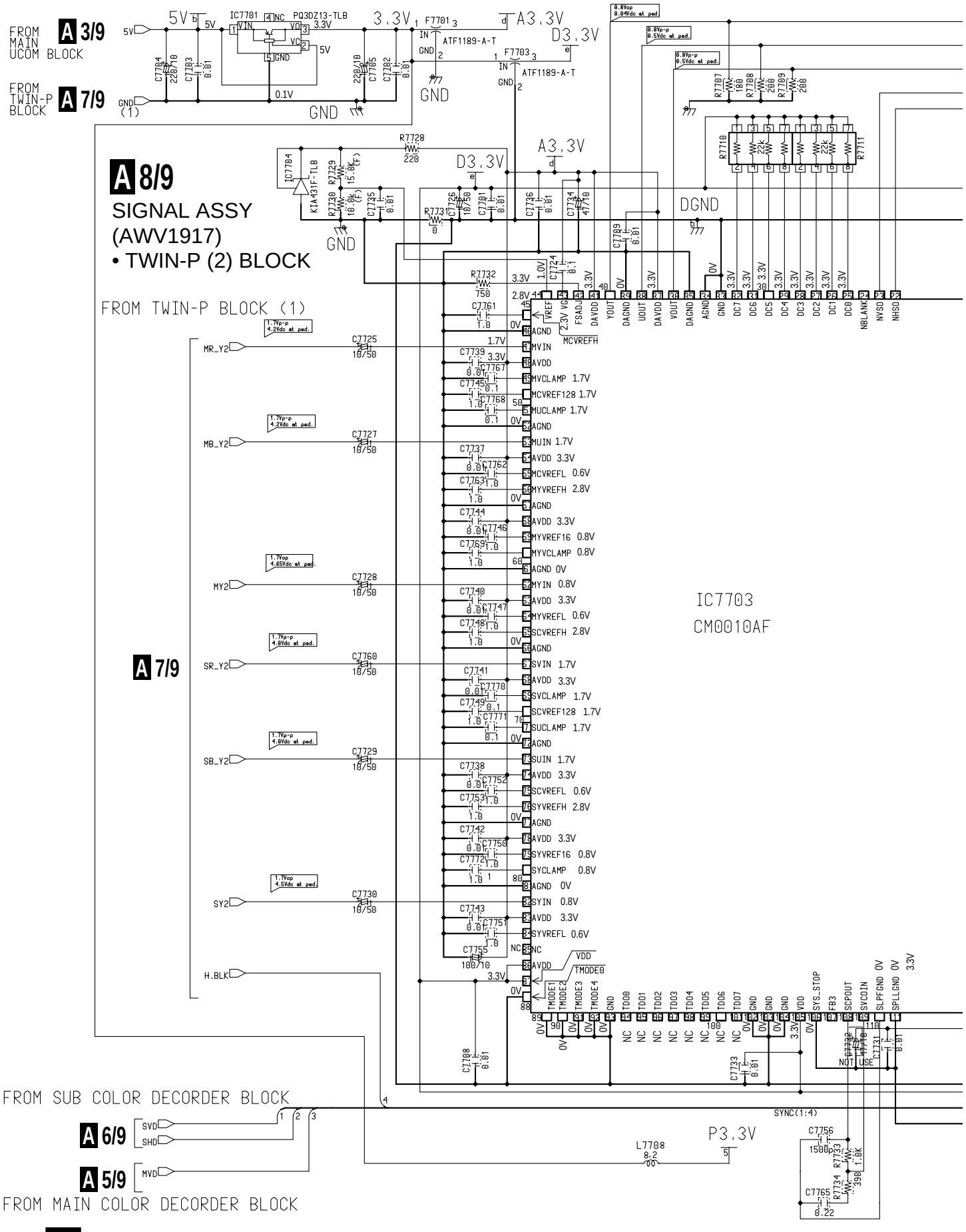
IC7502 (TK15420M)

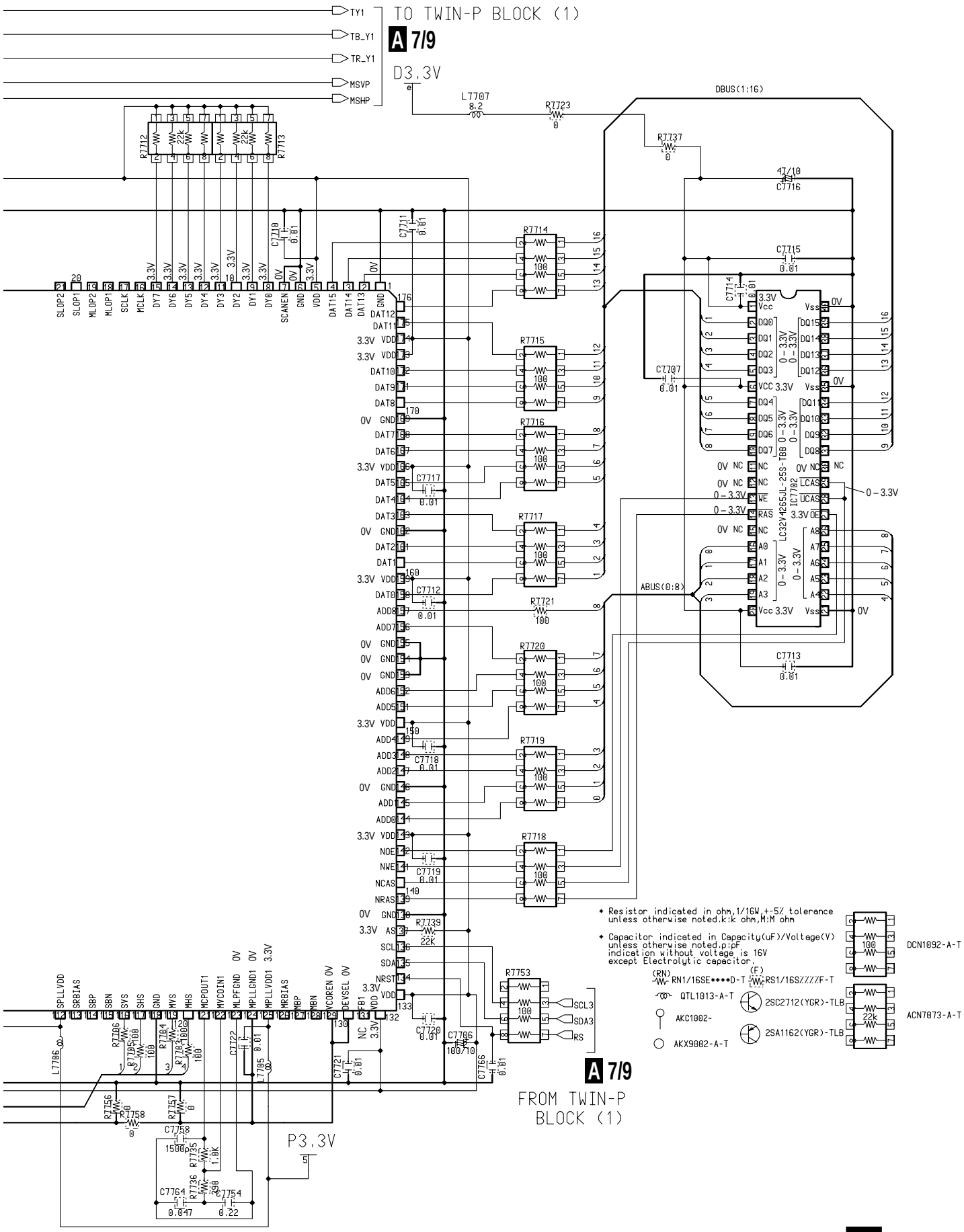
Pin No.	Voltage (V)
1	3.8V at ped.
2	3.8V at ped.
3	3.8V at ped.
4	0
5	3.5V at ped.
6	3.5V at ped.
7	3.5V at ped.
8	9

IC7503 (MC14053BF)

Pin No.	Voltage (V)
1	3.65
2	3.65
3	3.65
4	3.65
5	3.65
6	0
7	0
8	0
9	0 (sprit-screens) 9.0 (single-screen)
10	0 (sprit-screens) 9.0 (single-screen)
11	0 (sprit-screens) 9.0 (single-screen)
12	3.65
13	3.65
14	3.65
15	3.65
16	9.0

3.10 SIGNAL ASSY (8/9)

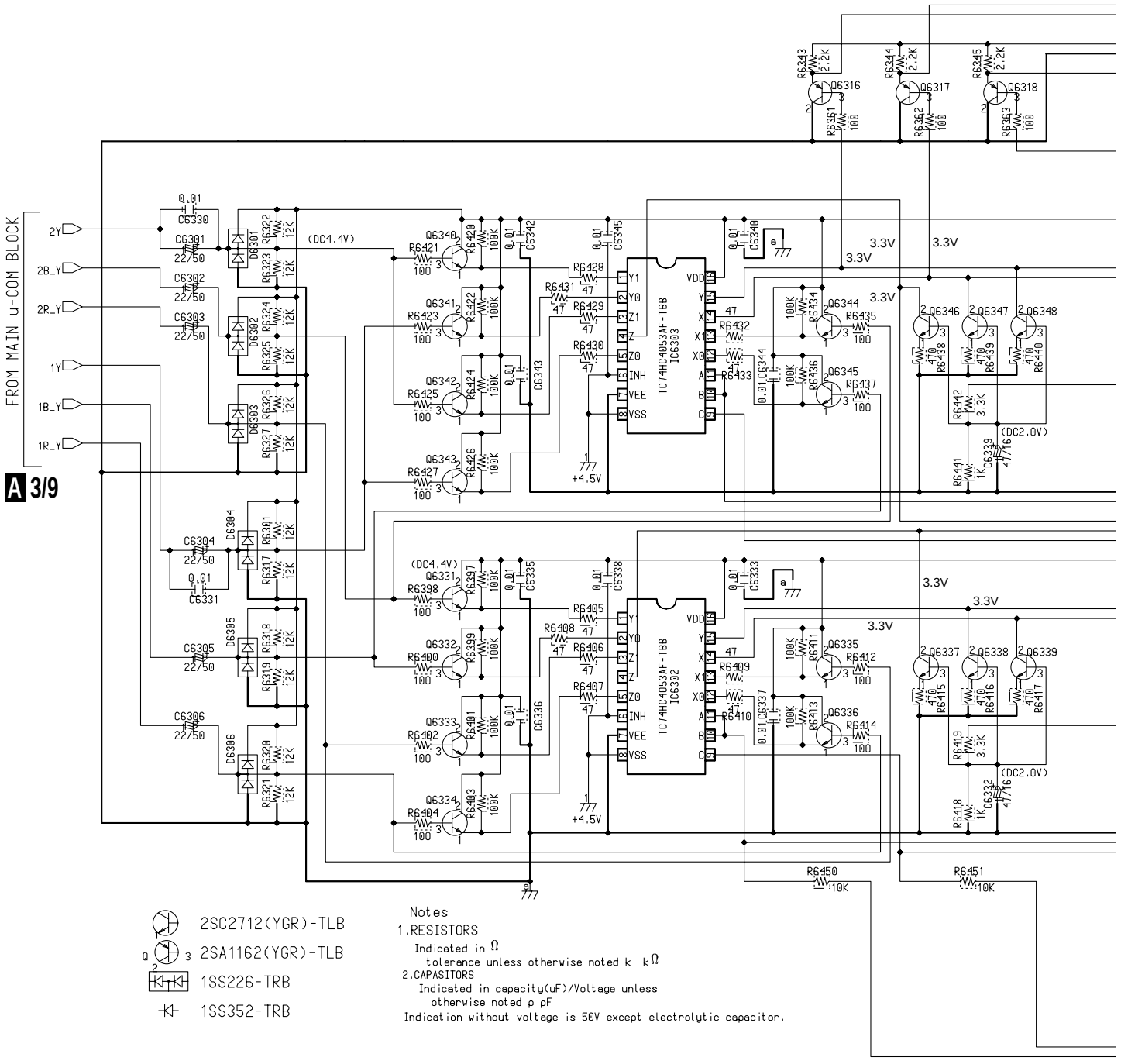


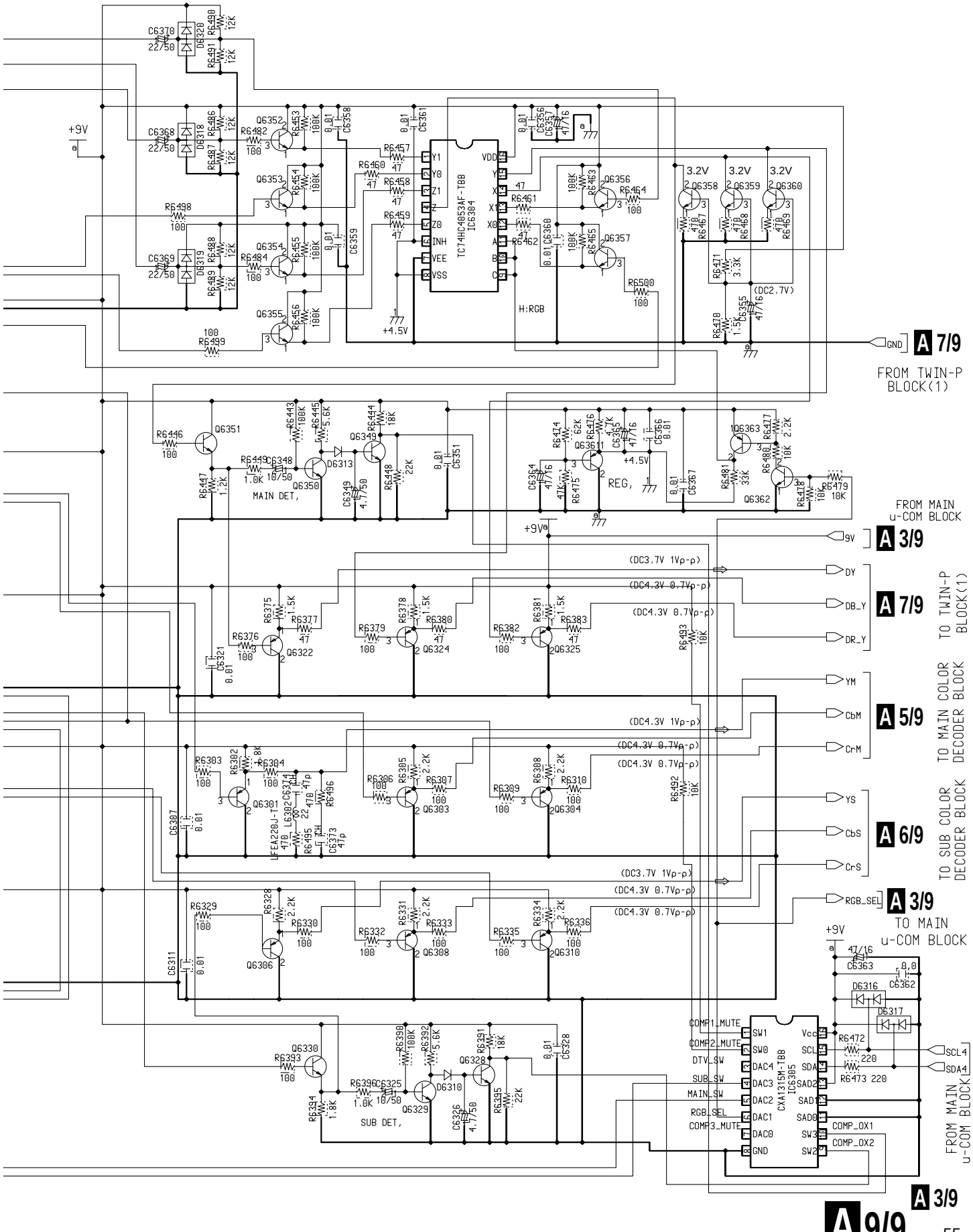

TO TWIN-P BLOCK (1)
A 7/9
TY1
TB_Y1
TR_Y1
MSVP
MSHP
D3.3V
L7707
8.2
R7723
DBUS(1:16)
R7737
C7716
47/10
C7715
0.01
C7714
C7707
C7717
C7712
C7713
R7721
ABUS(0:8)
IC7702
LC32V4265JL-25S-TBB
0 – 3.3V
R7714
R7715
R7716
R7717
R7720
R7719
R7718
R7739
22K
R7753
SCL3
SDA3
RS
C7718
C7719
C7720
C7706
100/10
C7766
C7721
C7722
L7705
L7706
R7706
R7705
R7704
R7703
R7756
R7758
R7757
C7758
1500p
R7735
1.6k
R7736
390
C7764
0.047
C7754
0.22
P3.3V
FROM TWIN-P BLOCK (1)
A 7/9
* Resistor indicated in ohm,1/16W,+-5% tolerance unless otherwise noted.k:k ohm,M:M ohm
* Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 16V except Electrolytic capacitor.
(RN) RN1/16SE****D-T
(F) RS1/16SZZZZF-T
QTL1013-A-T
AKC1002-
AKX9002-A-T
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
DCN1092-A-T
ACN7073-A-T

3.11 SIGNAL ASSY (9/9)

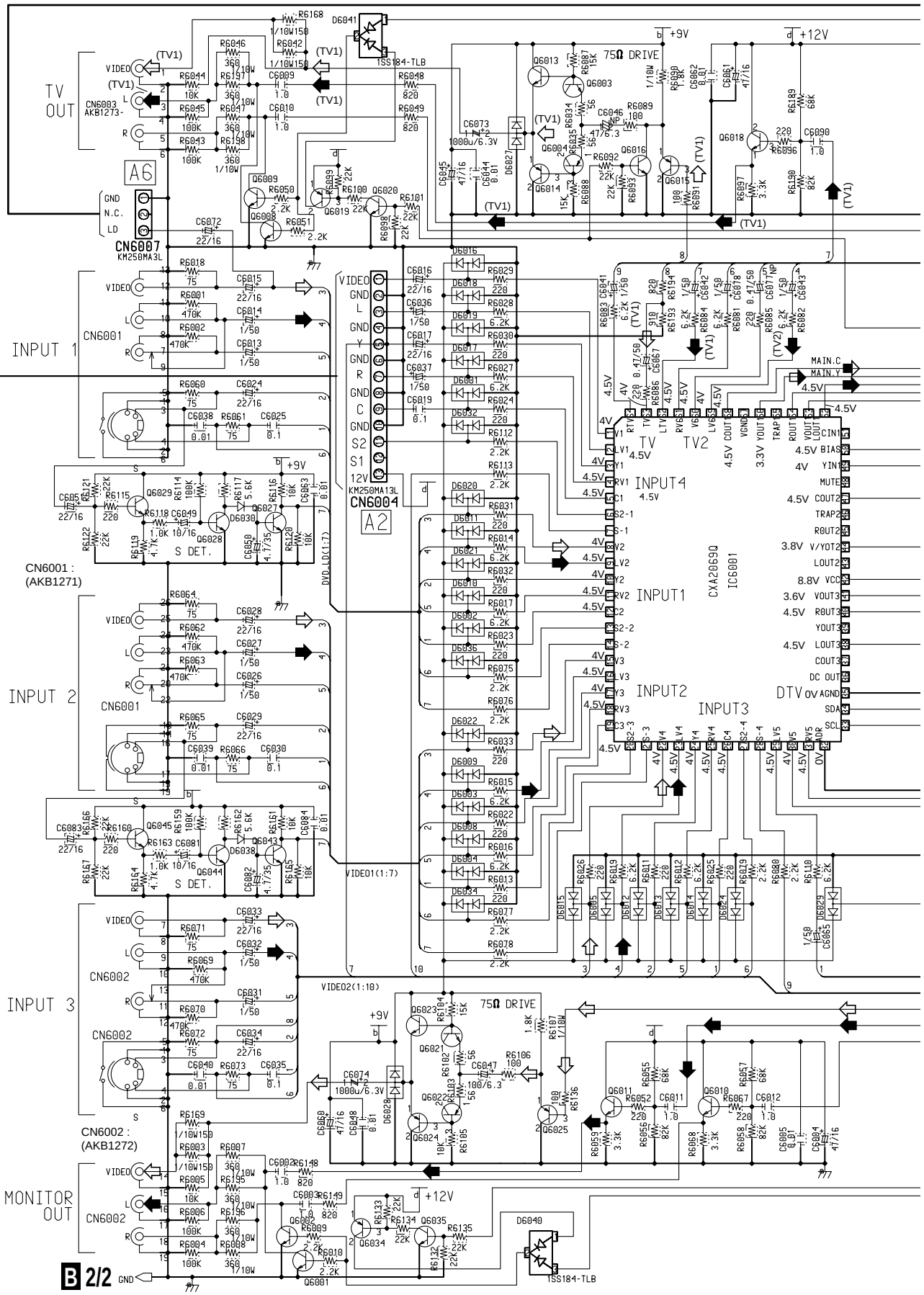
FROM TWIN-P BLOCK(1) A 7/9 — RGB.R, RGB.G, RGB.B

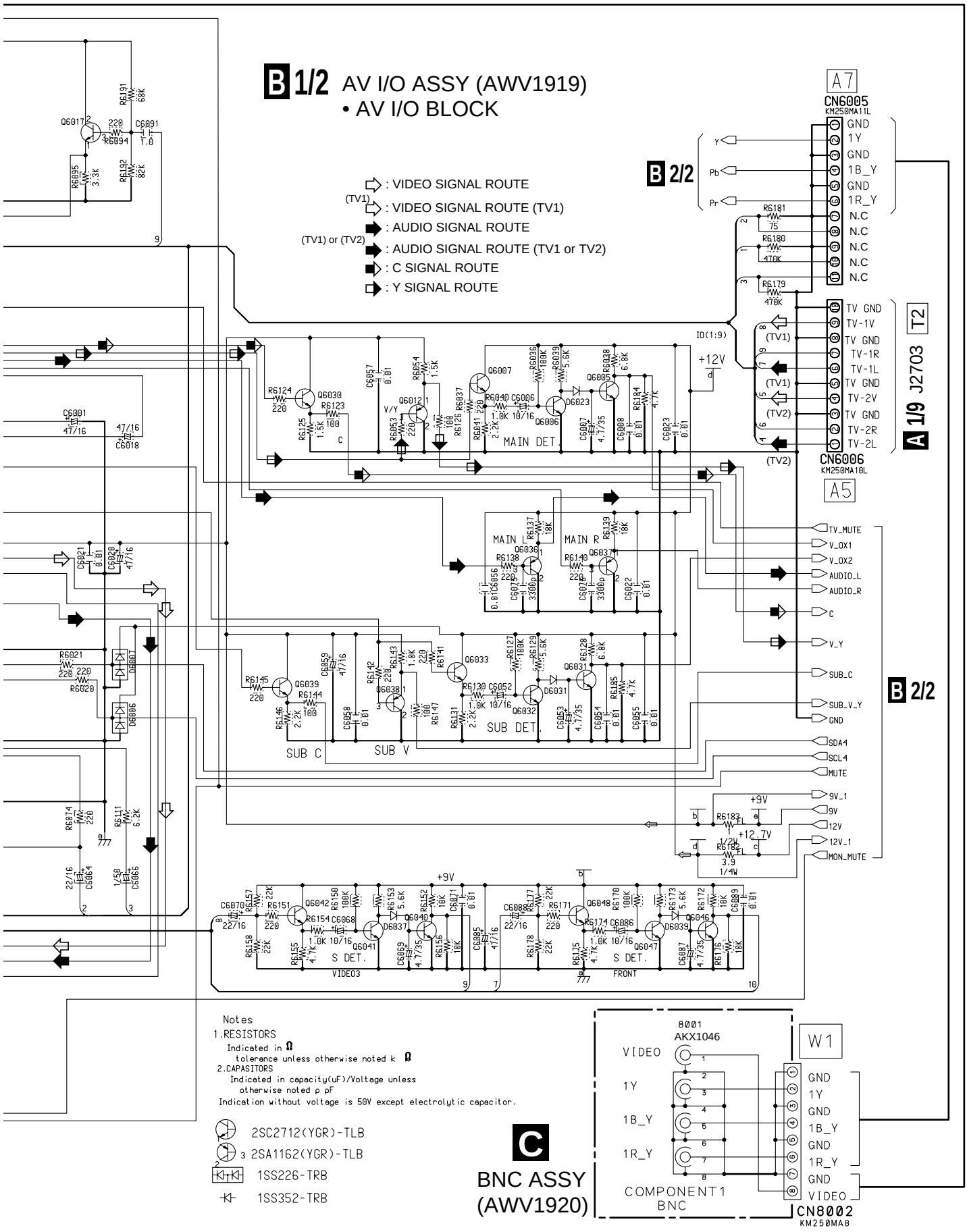
A 9/9 SIGNAL ASSY (AWV1917)
• COMPONENT BLOCK



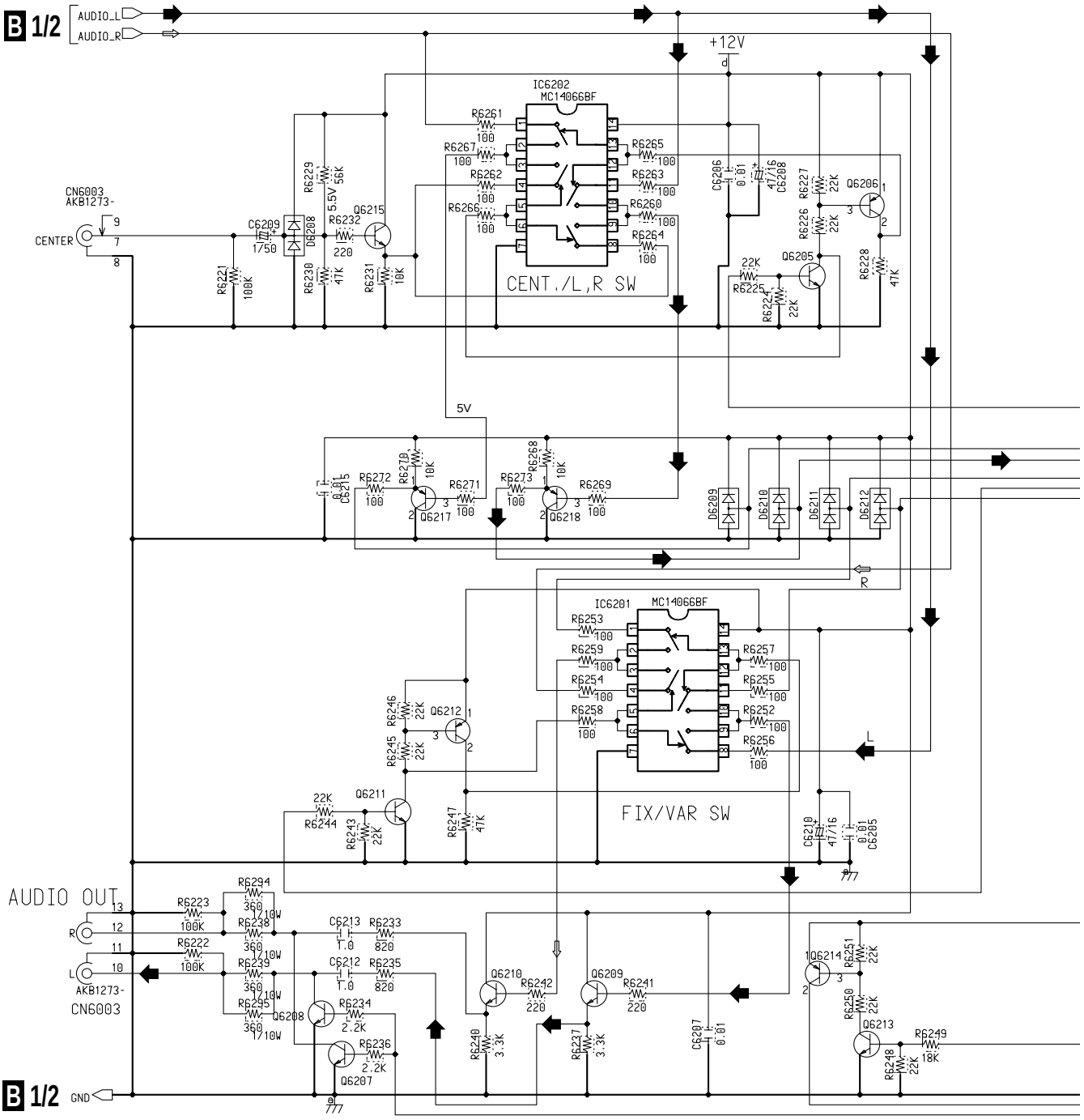

+9V
GND
A 7/9
FROM TWIN-P BLOCK(1)
TC74HC4053AF-TBB
IC6304
H:RGB
+4.5V
3.2V
(DC2.7V)
MAIN DET,
SUB DET,
REG,
Q6322
Q6324
Q6325
Q6301
Q6303
Q6304
Q6306
Q6308
Q6310
Q6328
Q6329
Q6330
FROM MAIN u-COM BLOCK
A 3/9
9V
DY
DB_Y
DR_Y
A 7/9
TO TWIN-P BLOCK(1)
YM
CbM
CrM
A 5/9
TO MAIN COLOR DECODER BLOCK
YS
CbS
CrS
A 6/9
TO SUB COLOR DECODER BLOCK
RGB_SEL
A 3/9
TO MAIN u-COM BLOCK
(DC3.7V 1Vp-p)
(DC4.3V 0.7Vp-p)
COMP1_MUTE
COMP2_MUTE
DTV_SW
SUB_SW
MAIN_SW
RGB_SEL
COMP3_MUTE
CXA1315M-TBB
IC6305
SCL4
SDA4
COMP_OX1
COMP_OX2
FROM MAIN u-COM BLOCK
A 3/9
A 9/9

3.12 AV I/O (1/2) and BNC ASSYS




B 1/2 AV I/O ASSY (AWV1919)
• AV I/O BLOCK
: VIDEO SIGNAL ROUTE
(TV1) : VIDEO SIGNAL ROUTE (TV1)
: AUDIO SIGNAL ROUTE
(TV1) or (TV2) : AUDIO SIGNAL ROUTE (TV1 or TV2)
: C SIGNAL ROUTE
: Y SIGNAL ROUTE
B 2/2
A7
CN6005
KM250MA11L
GND
1Y
GND
1B_Y
GND
1R_Y
N.C
N.C
N.C
N.C
N.C
TV GND
TV-1V
TV GND
TV-1R
TV-1L
TV GND
TV-2V
TV GND
TV-2R
TV-2L
A 1/9 J2703 T2
CN6006
KM250MA10L
A5
TV_MUTE
V_OX1
V_OX2
AUDIO_L
AUDIO_R
C
V_Y
SUB_C
SUB_V_Y
GND
SDA4
SCL4
MUTE
9V_1
9V
12V
12V_1
MON_MUTE
B 2/2
MAIN DET.
SUB DET.
SUB C
SUB V
S DET.
VIDEO3
FRONT
+12V
+9V
+12_7V
IO(1:9)
Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS226-TRB
1SS352-TRB
C
BNC ASSY
(AWV1920)
8001
AKX1046
W1
VIDEO
1Y
1B_Y
1R_Y
COMPONENT1
BNC
CN8002
KM250MA8

3.13 AV I/O (2/2) and SR ASSYS

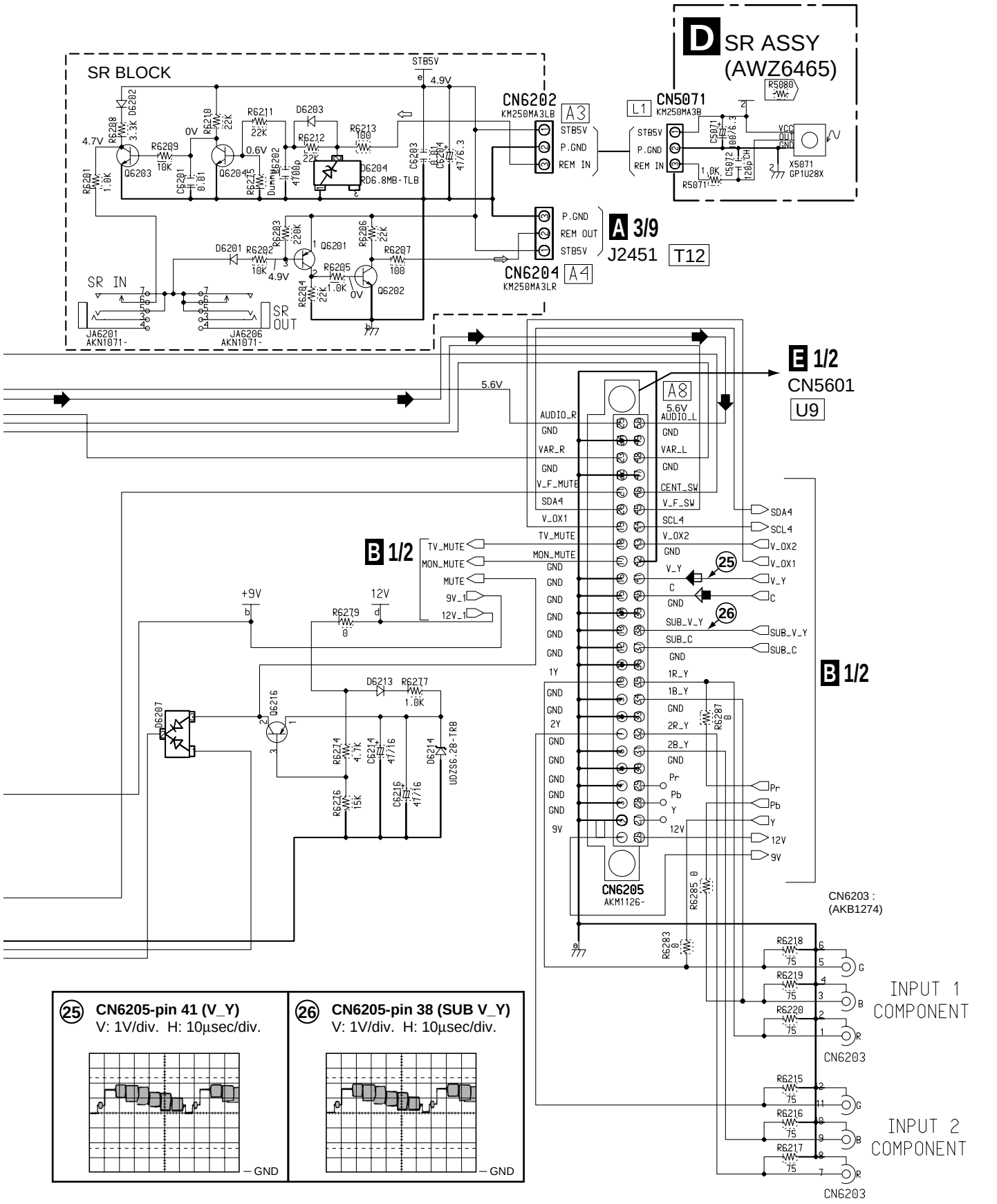


B 2/2 AV I/O ASSY (AWV1919)
• AV I/O and SR BLOCKS

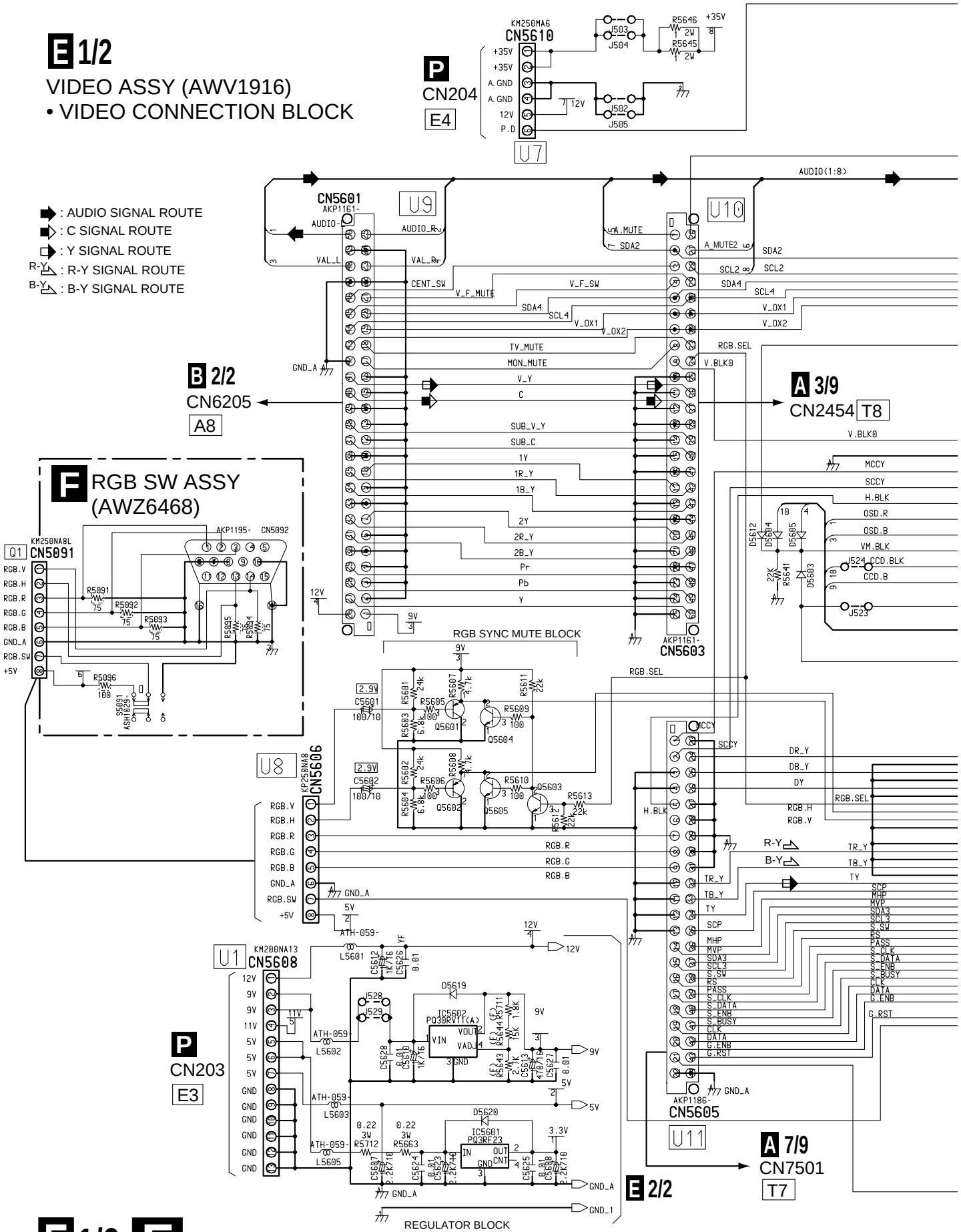
: AUDIO SIGNAL ROUTE
: C SIGNAL ROUTE
: Y SIGNAL ROUTE

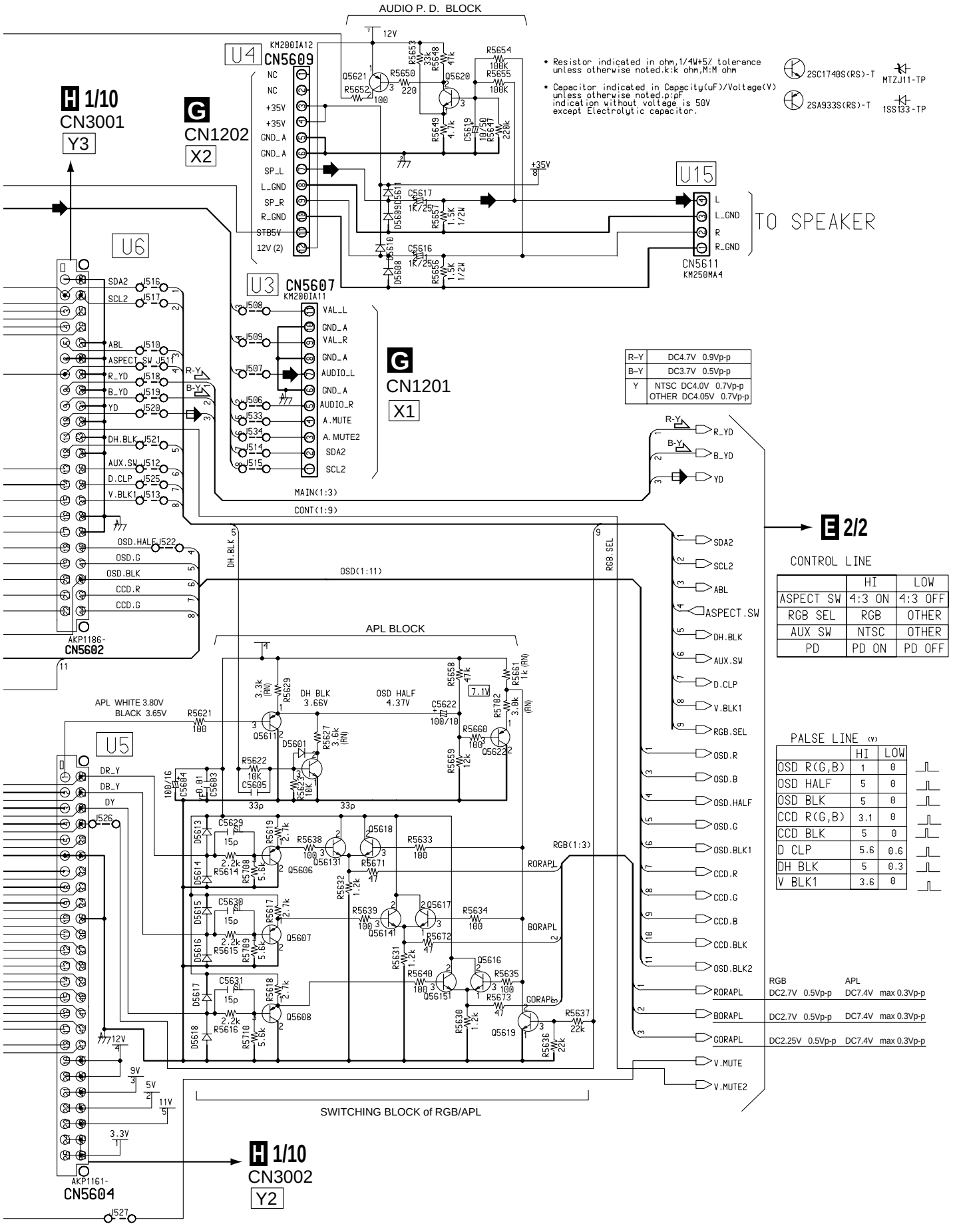
Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless
otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
1SS352-TRB

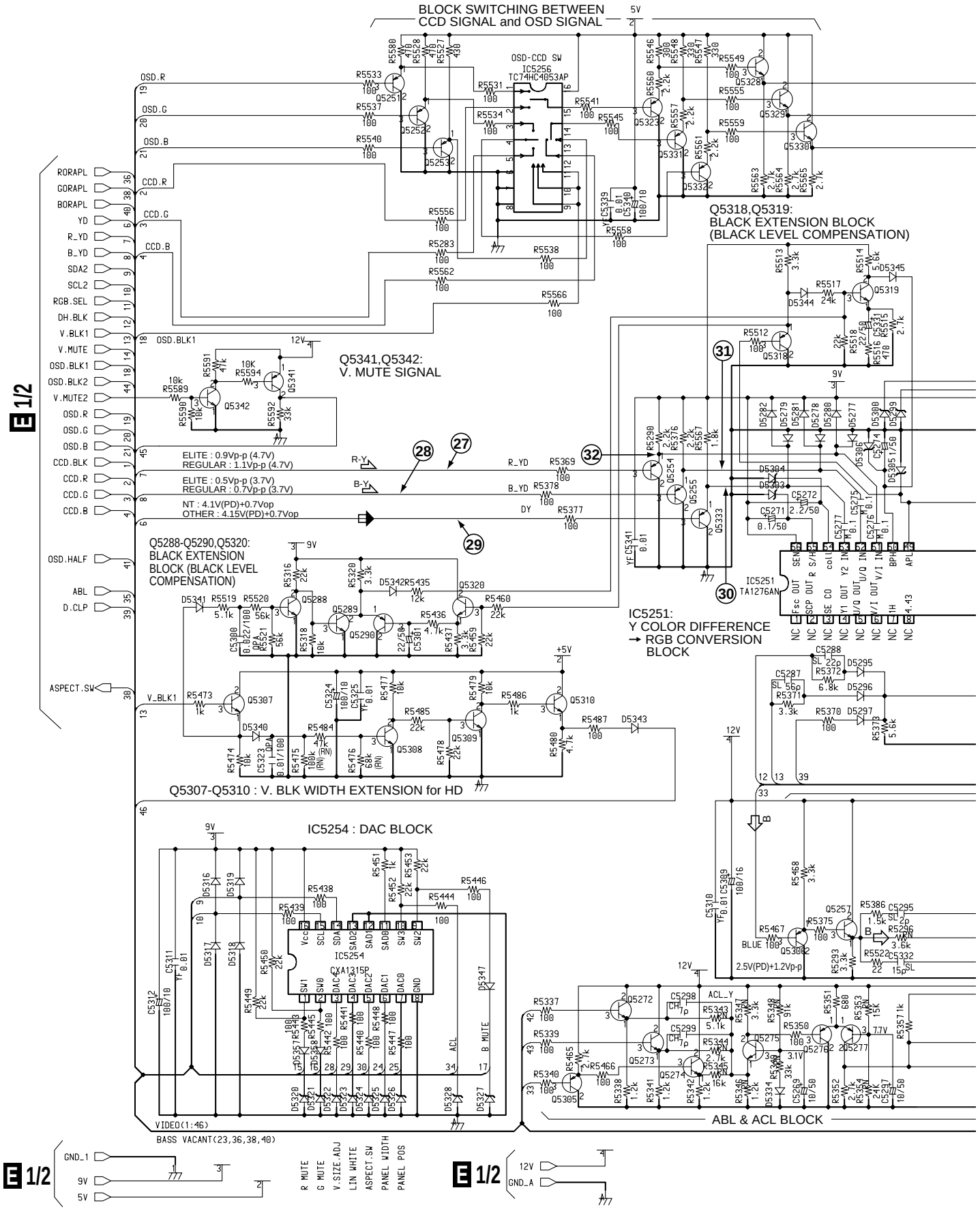

D SR ASSY (AWZ6465)
SR BLOCK
CN6202
KM250MA3LB
CN5071
KM250MA3B
CN6204
KM250MA3LR
A 3/9
J2451
T12
E 1/2
CN5601
U9
B 1/2
CN6205
AKM1126-
SR IN
SR OUT
JA6201
AKN1071-
JA6206
AKN1071-
INPUT 1 COMPONENT
INPUT 2 COMPONENT
CN6203
CN6203 :
(AKB1274)
25 CN6205-pin 41 (V_Y)
V: 1V/div. H: 10µsec/div.
26 CN6205-pin 38 (SUB V_Y)
V: 1V/div. H: 10µsec/div.
– GND
– GND

3.14 VIDEO (1/2) and RGB SW ASSYS




AUDIO P. D. BLOCK
U4
KM200IA12
CN5609
NC
NC
+35V
+35V
GND_A
GND_A
SP_L
L_GND
SP_R
R_GND
STB5V
12V (2)
• Resistor indicated in ohm,1/4W±5% tolerance unless otherwise noted.k:k ohm,M:M ohm
• Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.
2SC1740S(RS)-T
MTZJ11-TP
2SA933S(RS)-T
1SS133-TP
H 1/10
CN3001
Y3
G
CN1202
X2
U15
L
L_GND
R
R_GND
TO SPEAKER
CN5611
KM250MA4
U6
U3
CN5607
KM200IA11
VAL_L
GND_A
VAL_R
GND_A
AUDIO_L
GND_A
AUDIO_R
A.MUTE
A. MUTE2
SDA2
SCL2
G
CN1201
X1
R-Y
B-Y
Y
DC4.7V 0.9Vp-p
DC3.7V 0.5Vp-p
NTSC DC4.0V 0.7Vp-p
OTHER DC4.05V 0.7Vp-p
MAIN(1:3)
CONT(1:9)
OSD(1:11)
DH.BLK
RGB.SEL
SDA2
SCL2
ABL
ASPECT.SW
DH.BLK
AUX.SW
D.CLP
V.BLK1
RGB.SEL
OSD.R
OSD.B
OSD.HALF
OSD.G
OSD.BLK1
CCD.R
CCD.G
CCD.B
CCD.BLK
OSD.BLK2
RORAPL
BORAPL
GORAPL
V.MUTE
V.MUTE2
SDA2
SCL2
ABL
ASPECT SW
R_YD
B_YD
YD
DH.BLK
AUX.SW
D.CLP
V.BLK1
OSD.HALF
OSD.G
OSD.BLK
CCD.R
CCD.G
AKP1186-
CN5602
E 2/2
CONTROL LINE
ASPECT SW 4:3 ON 4:3 OFF
RGB SEL RGB OTHER
AUX SW NTSC OTHER
PD PD ON PD OFF
APL BLOCK
APL WHITE 3.80V
BLACK 3.65V
DH BLK 3.66V
OSD HALF 4.37V
7.1V
U5
DR_Y
DB_Y
DY
J526
RGB(1:3)
RORAPL
BORAPL
GORAPL
PALSE LINE (V)
OSD R(G,B) HI 1 LOW 0
OSD HALF HI 5 LOW 0
OSD BLK HI 5 LOW 0
CCD R(G,B) HI 3.1 LOW 0
CCD BLK HI 5 LOW 0
D CLP HI 5.6 LOW 0.6
DH BLK HI 5 LOW 0.3
V BLK1 HI 3.6 LOW 0
RGB APL
RORAPL DC2.7V 0.5Vp-p DC7.4V max 0.3Vp-p
BORAPL DC2.7V 0.5Vp-p DC7.4V max 0.3Vp-p
GORAPL DC2.25V 0.5Vp-p DC7.4V max 0.3Vp-p
12V
9V
5V
11V
3.3V
SWITCHING BLOCK of RGB/APL
H 1/10
CN3002
Y2
AKP1161-
CN5604
J527

3.15 VIDEO ASSY (2/2)

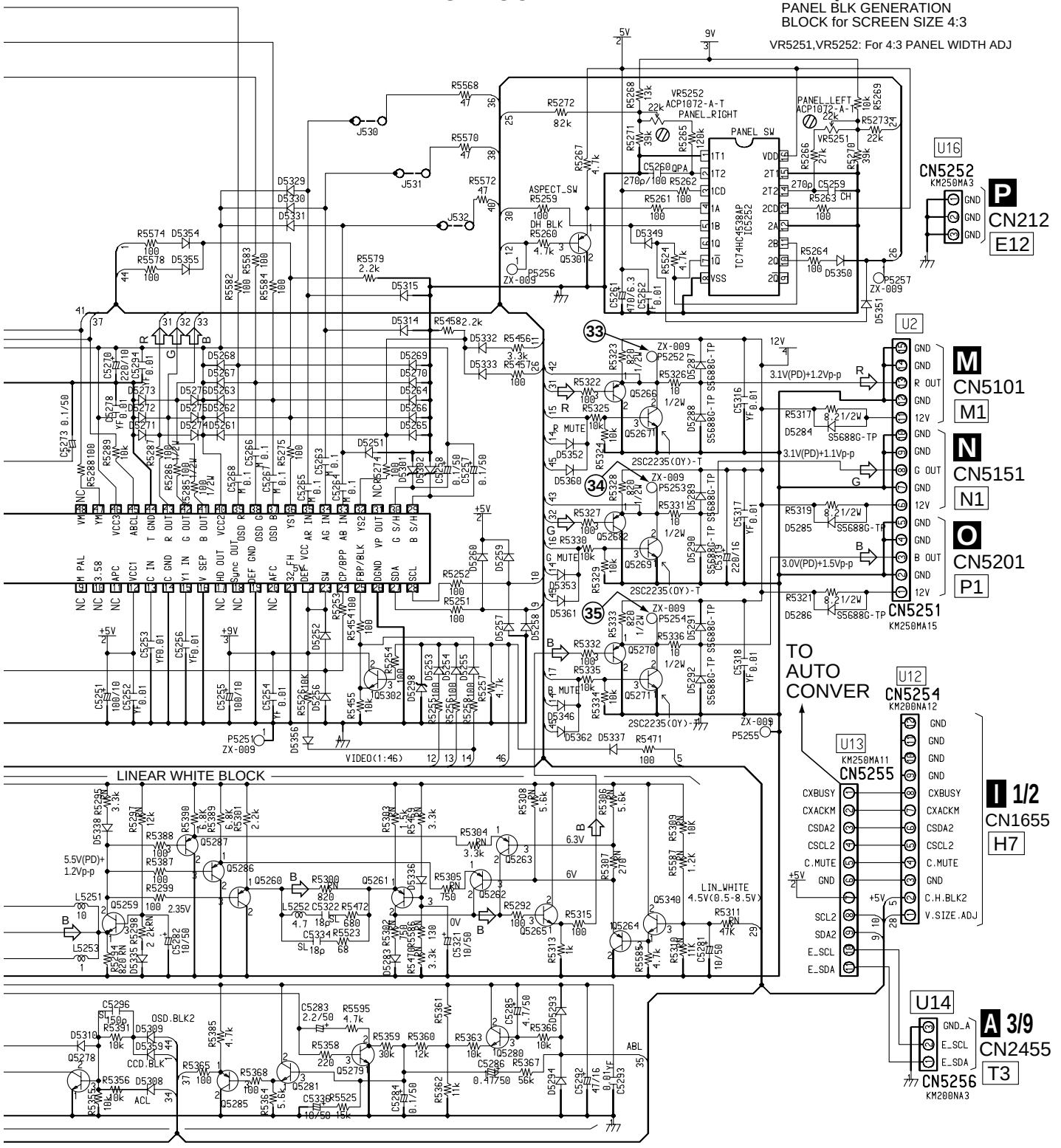


: Y SIGNAL ROUTE
R-Y : R-Y SIGNAL ROUTE
B-Y : B-Y SIGNAL ROUTE
R, G or B : R, G or B SIGNAL ROUTE

E 2/2 VIDEO ASSY (AWV1916)
• VIDEO BLOCK

IC5252.Q5301 :
PANEL BLK GENERATION
BLOCK for SCREEN SIZE 4:3

VR5251,VR5252: For 4:3 PANEL WIDTH ADJ



- Resistor indicated in ohm,1/4W+5% tolerance unless otherwise noted.k:k ohm,M:M ohm
- Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.

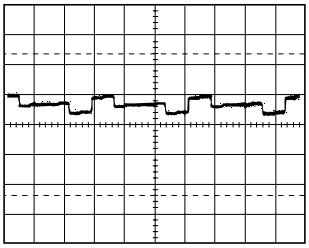
2SC1740S(RS)-T MTZJ11-TP
2SA933S(RS)-T 1SS133-TP

This sheet name is 11ku-video3

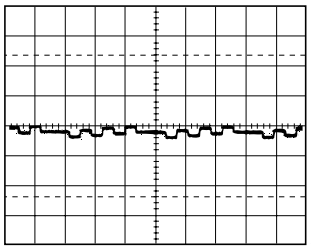
E 2/2 VIDEO ASSY (2/2)

Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

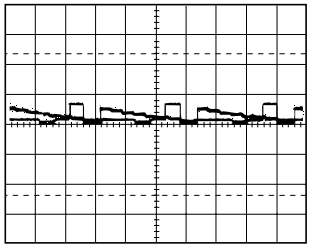
27 **Foot of R5369 (Sharpness output R-Y)**
V: 1V/div. H: 10µsec/div.



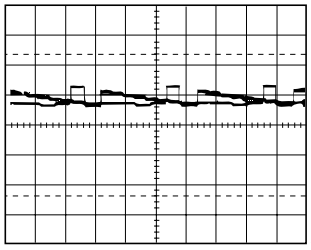
28 **Foot of R5378 (Sharpness output B-Y)**
V: 1V/div. H: 10µsec/div.



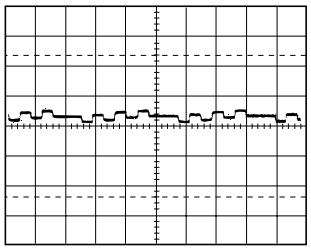
29 **Foot of R5377 (Sharpness output Y)**
V: 1V/div. H: 10µsec/div.



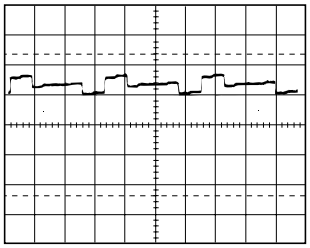
30 **Q5333 Emitter (Y input)**
V: 1V/div. H: 10µsec/div.



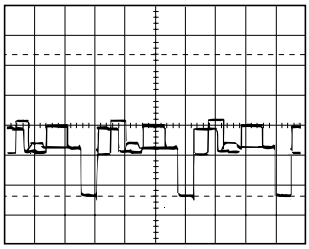
31 **Q5255 Emitter (B-Y input)**
V: 1V/div. H: 10µsec/div.



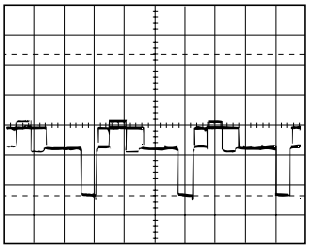
32 **Q5254 Emitter (R-Y input)**
V: 1V/div. H: 10µsec/div.



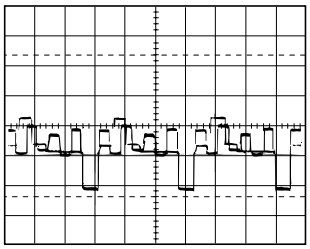
33 **P5252 (R OUT)**
V: 1V/div. H: 10µsec/div.



34 **P5253 (G OUT)**
V: 1V/div. H: 10µsec/div.



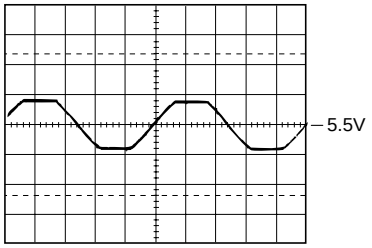
35 **P5254 (B OUT)**
V: 1V/div. H: 10µsec/div.



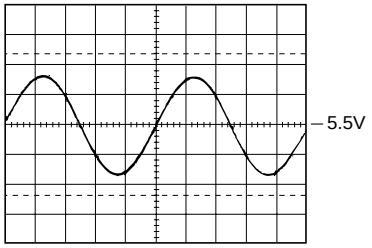
G AUDIO ASSY

Input signal
Video signal : EIA full color-bar , Picture quality : Standard
f = 1kHz , Vol. : MAX (Unless otherwise noted) Vin = 0.4rms
Range :DC range (Unless otherwise noted)

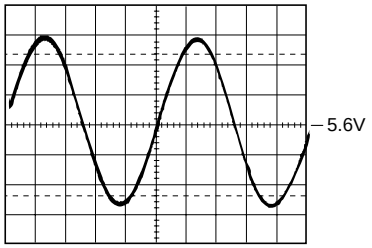
36-1 **CN1201-pin 11**
V: 5V/div. H: 0.2msec/div.



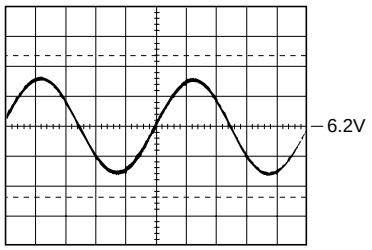
36-2 **CN1201-pin 11**
V: 2V/div. H: 0.2msec/div.
• Vol : 40



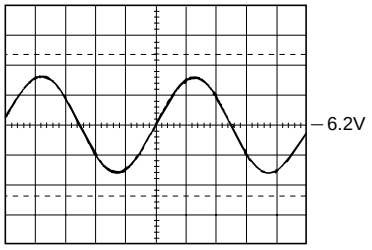
37 **CN1201-pin 7**
V: 0.2V/div. H: 0.2msec/div.



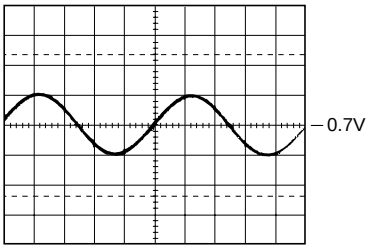
38 **IC1201-pin 26**
V: 0.2V/div. H: 0.2msec/div.



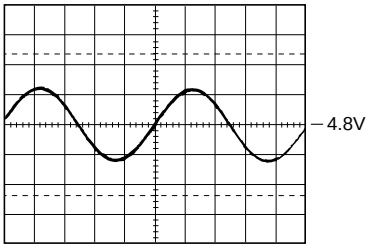
39 **IC1201-pin 14, 17**
V: 0.2V/div. H: 0.2msec/div.



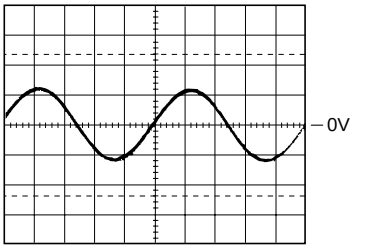
40 **C1229 + (plus) side**
V: 0.2V/div. H: 0.2msec/div.



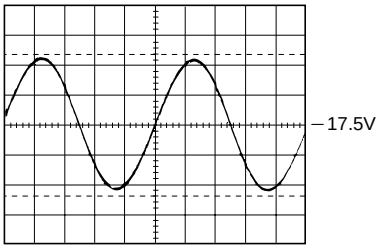
41 **Q1201 Base**
V: 0.2V/div. H: 0.2msec/div.



42 **C1241 – (minus) side**
V: 0.2V/div. H: 0.2msec/div.



43 **CN1202-pin 7**
V: 5V/div. H: 0.2msec/div.



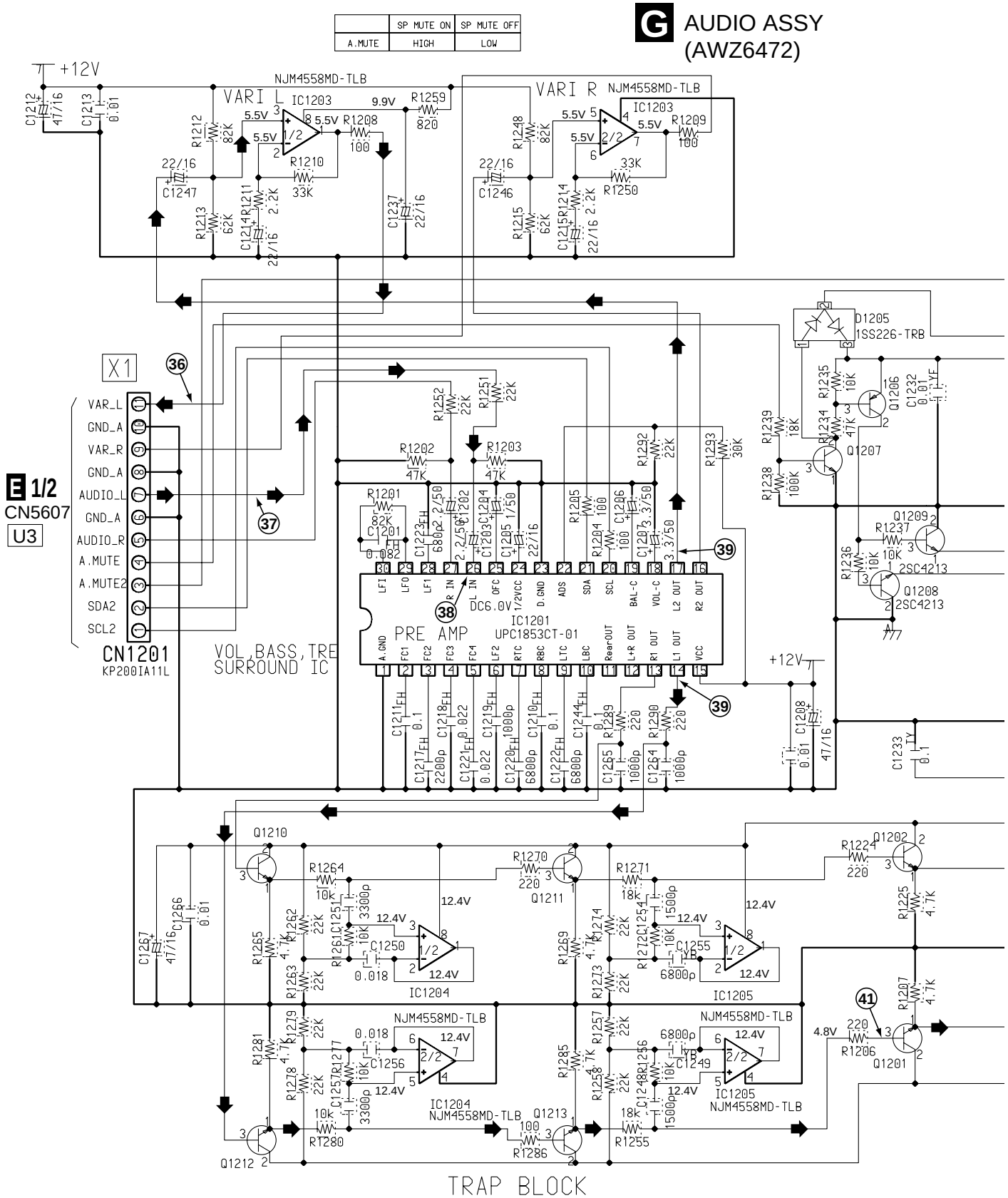
IC1201 (UPC1853CT-01)

Pin No.	Voltage(V)	Pin No.	Voltage(V)
1	0	16	6.2
2	6.2	17	6.2
3	6.2	18	6.2
4	6.2	19	4.8
5	6.2	20	-
6	6.2	21	-
7	6.2	22	5.1
8	6.2	23	0
9	6.2	24	6.2
10	6.2	25	6.2
11	6.2	26	6.2
12	6.2	27	6.2
13	6.2	28	6.2
14	6.2	29	6.2
15	12.4	30	6.2

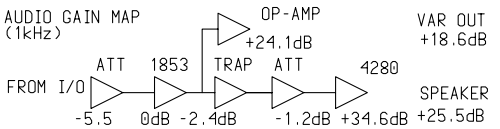
IC1202 (LA4280-P)

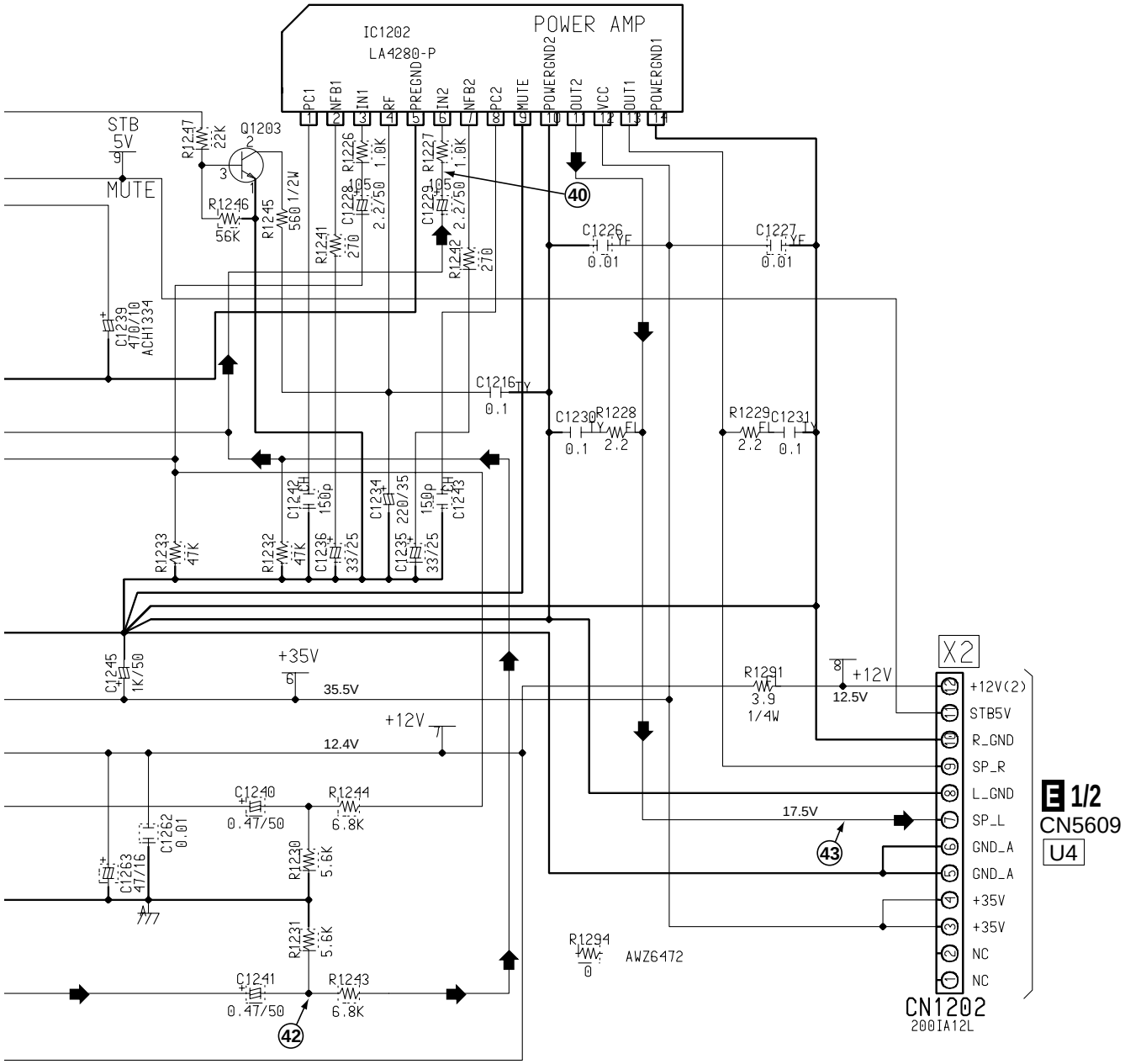
Pin No.	Voltage (V)
1	0.8
2	1.1
3	0.7
4	17.5
5	0
6	0.7
7	1.1
8	0.8
9	0
10	0
11	17.5
12	35.5
13	17.5
14	0

3.16 AUDIO ASSY



: AUDIO SIGNAL ROUTE





Notes

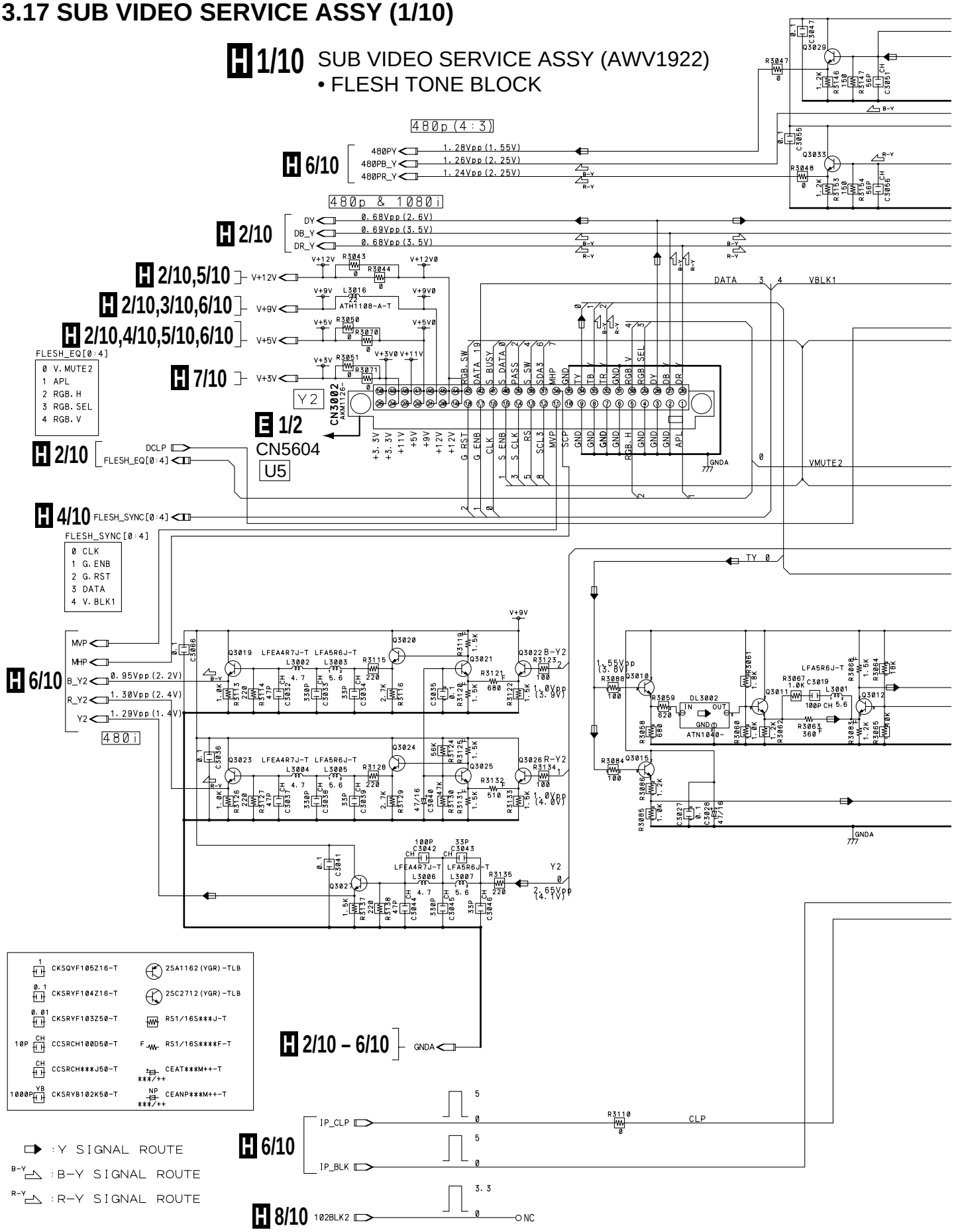
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω

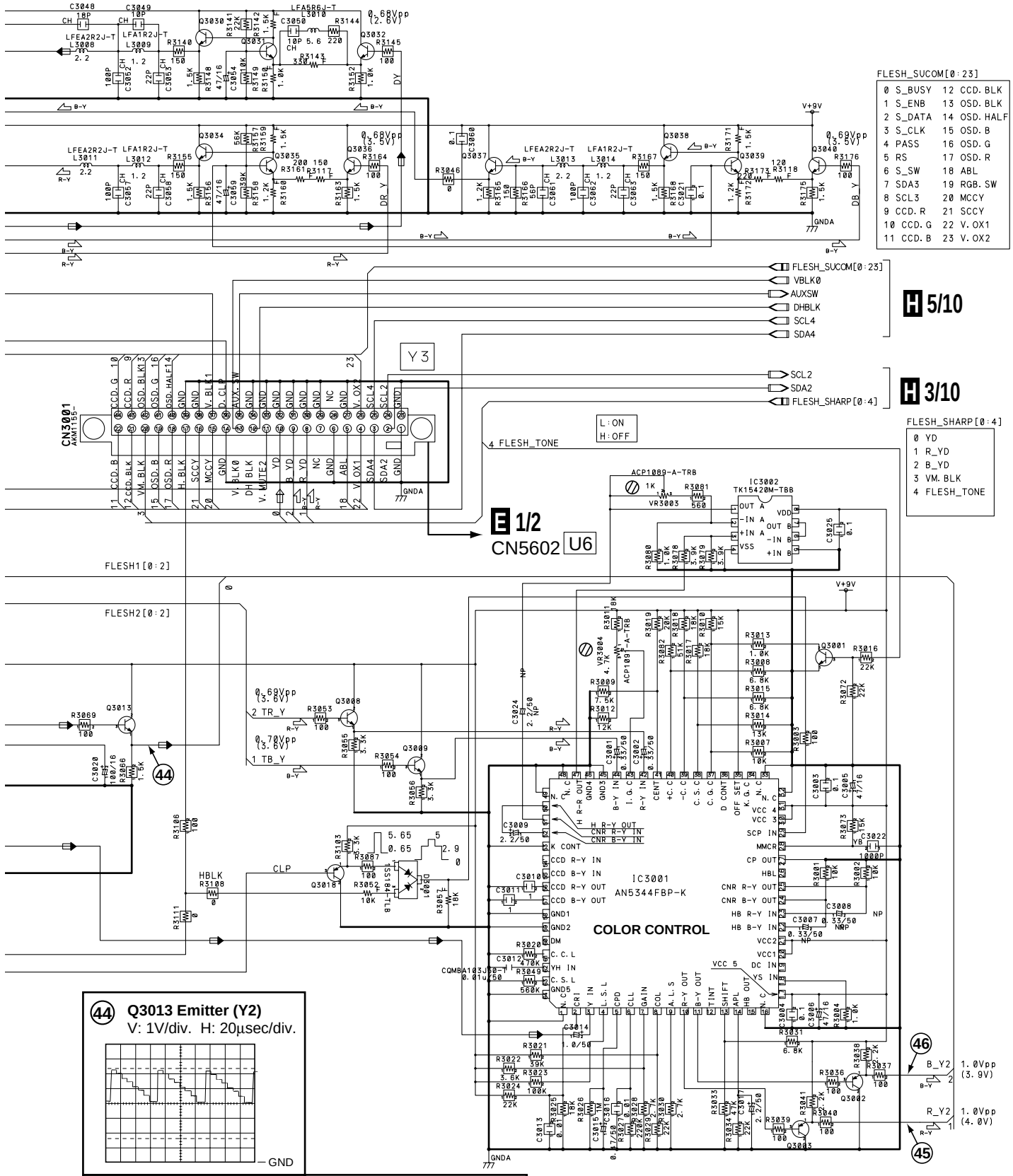
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF

Indication without voltage is 50V except electrolytic capacitor.

2SA1162(YGR)-TLB
2SC2712(YGR)-TLB
RD___MB-TLB
ISS352-TRB
1/16W

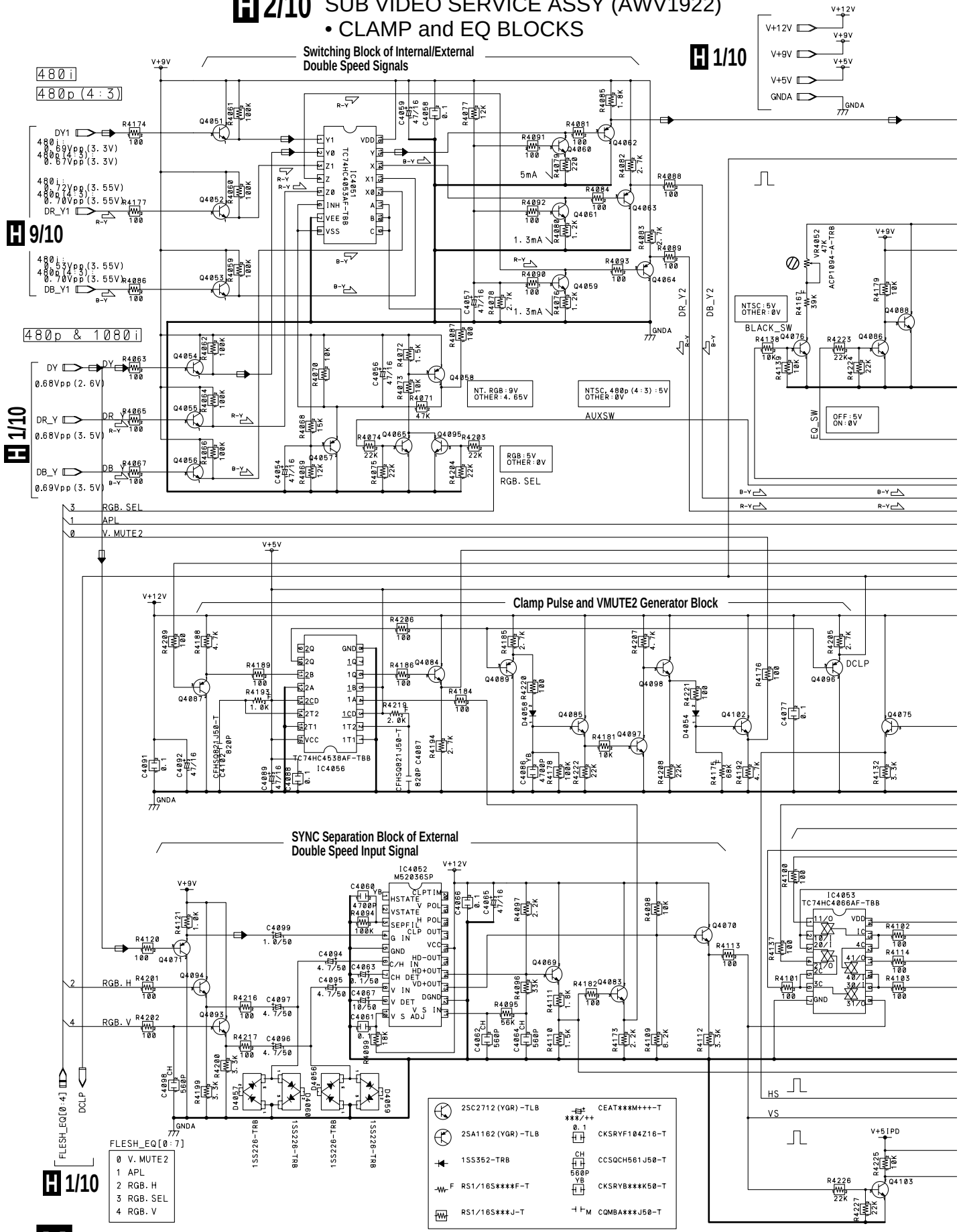
3.17 SUB VIDEO SERVICE ASSY (1/10)

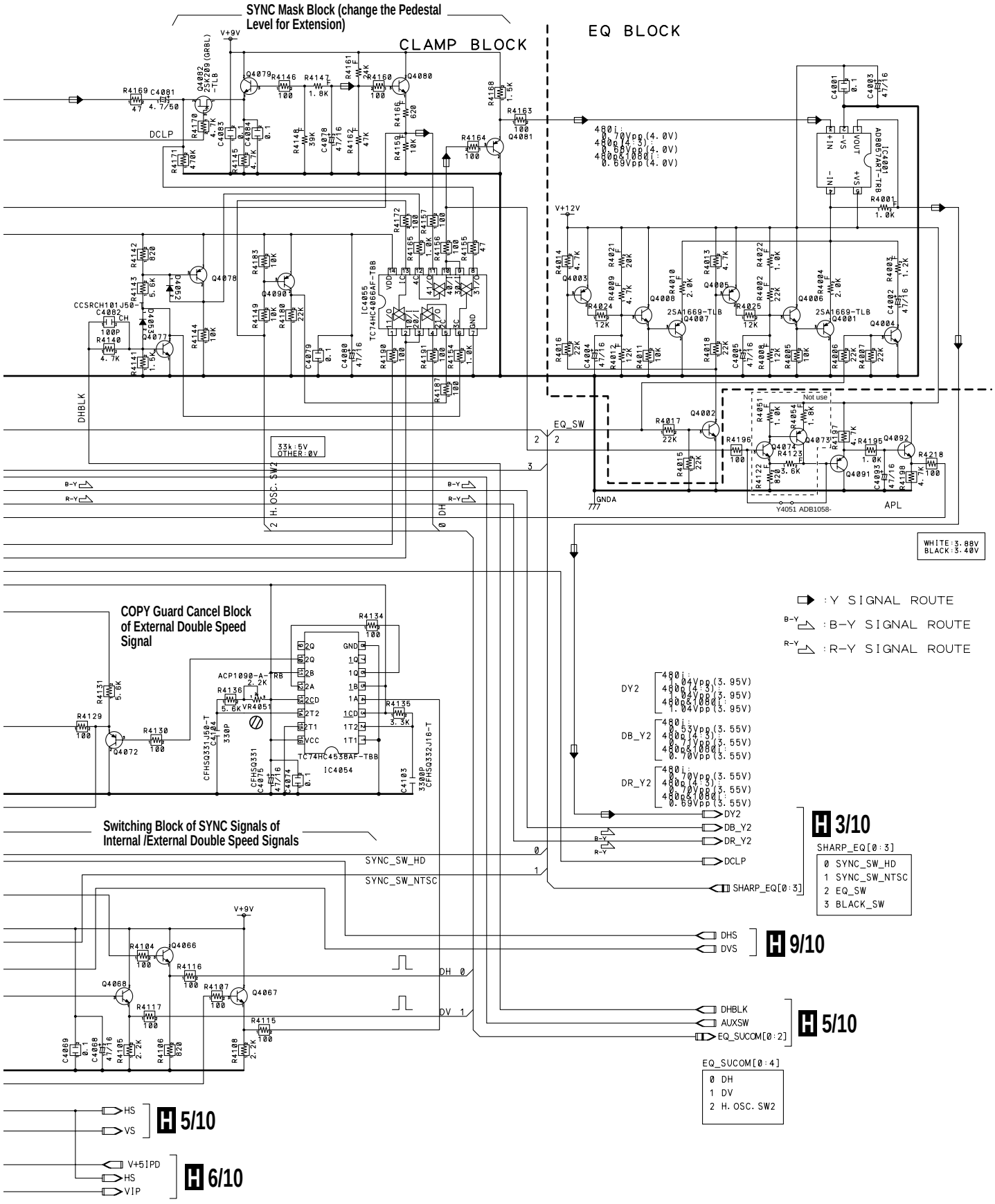



FLESH_SUCOM[0:23]
0 S_BUSY 12 CCD. BLK
1 S_ENB 13 OSD. BLK
2 S_DATA 14 OSD. HALF
3 S_CLK 15 OSD. B
4 PASS 16 OSD. G
5 RS 17 OSD. R
6 S_SW 18 ABL
7 SDA3 19 RGB. SW
8 SCL3 20 MCCY
9 CCD. R 21 SCCY
10 CCD. G 22 V. OX1
11 CCD. B 23 V. OX2
FLESH_SUCOM[0:23]
VBLK0
AUXSW
DHBLK
SCL4
SDA4
H 5/10
SCL2
SDA2
FLESH_SHARP[0:4]
H 3/10
FLESH_SHARP[0:4]
0 YD
1 R_YD
2 B_YD
3 VM. BLK
4 FLESH_TONE
L:ON
H:OFF
4 FLESH_TONE
E 1/2
CN5602 U6
CN3001
AKM1155-
Y3
FLESH1[0:2]
FLESH2[0:2]
IC3001
AN5344FBP-K
COLOR CONTROL
IC3002
TK15420M-TBB
ACP1089-A-TRB
VR3003
VR3004
ACP1091-A-TRB
Q3001
Q3002
Q3003
Q3008
Q3009
Q3013
Q3018
Q3030
Q3031
Q3032
Q3034
Q3035
Q3036
Q3037
Q3038
Q3039
Q3040
V+9V
GNDA
0.68Vpp (2.6V)
0.60Vpp (3.0V)
0.70Vpp (3.6V)
2 TR_Y
1 TB_Y
CLP
HBLK
44 Q3013 Emitter (Y2)
V: 1V/div. H: 20µsec/div.
GND
45 Foot of R3040 (R-Y2)
V: 1V/div. H: 20µsec/div.
GND
46 Foot of R3037 (B-Y2)
V: 1V/div. H: 20µsec/div.
GND
B_Y2 1.0Vpp (3.9V)
R_Y2 1.0Vpp (4.0V)

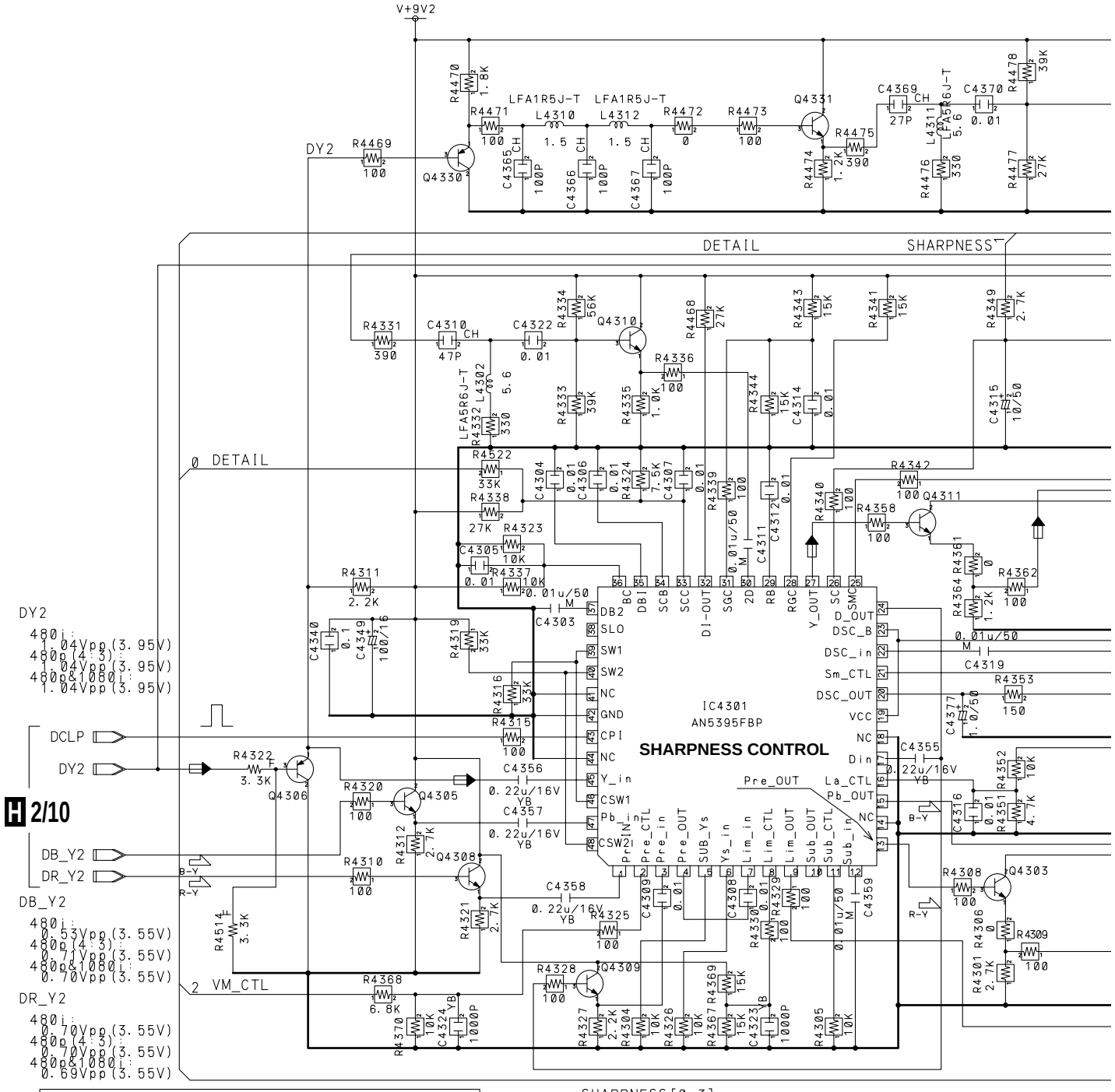
3.18 SUB VIDEO SERVICE ASSY (2/10)

H 2/10 SUB VIDEO SERVICE ASSY (AWV1922)
• CLAMP and EQ BLOCKS



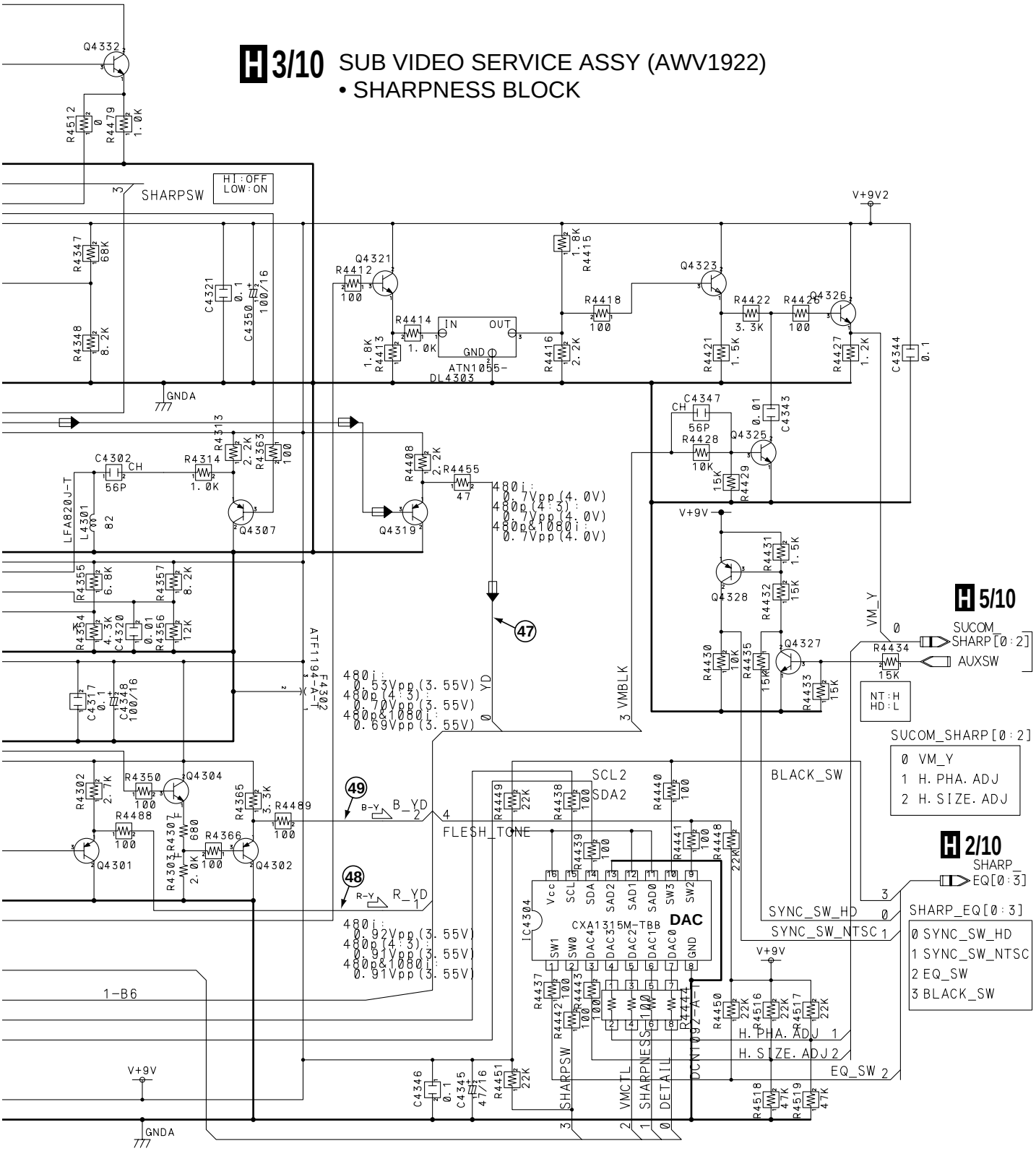

SYNC Mask Block (change the Pedestal Level for Extension)
CLAMP BLOCK
EQ BLOCK
V+9V
V+12V
DCLP
DHBLK
EQ_SW
33k:5V OTHER:0V
2 H. OSC. SW2
0 DH
B-Y
R-Y
GNDA
APL
Y4051 ADB1058-
Not use
WHITE:3.88V
BLACK:3.40V
:Y SIGNAL ROUTE
:B-Y SIGNAL ROUTE
:R-Y SIGNAL ROUTE
COPY Guard Cancel Block of External Double Speed Signal
Switching Block of SYNC Signals of Internal /External Double Speed Signals
SYNC_SW_HD
SYNC_SW_NTSC
DY2
DB_Y2
DR_Y2
DCLP
SHARP_EQ[0:3]
H 3/10
0 SYNC_SW_HD
1 SYNC_SW_NTSC
2 EQ_SW
3 BLACK_SW
DHS
DVS
H 9/10
DH 0
DV 1
DHBLK
AUXSW
EQ_SUCOM[0:2]
H 5/10
EQ_SUCOM[0:4]
0 DH
1 DV
2 H. OSC. SW2
HS
VS
H 5/10
V+5IPD
HS
VIP
H 6/10

3.19 SUB VIDEO SERVICE ASSY (3/10)

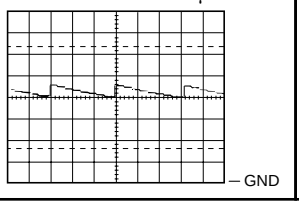


H 3/10 SUB VIDEO SERVICE ASSY (AWV1922)

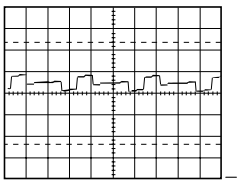
• SHARPNESS BLOCK



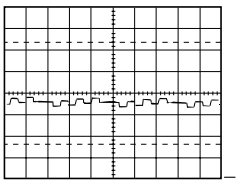
47 **Foot of R4455 (YD)**
V: 1V/div. H: 10µsec/div.



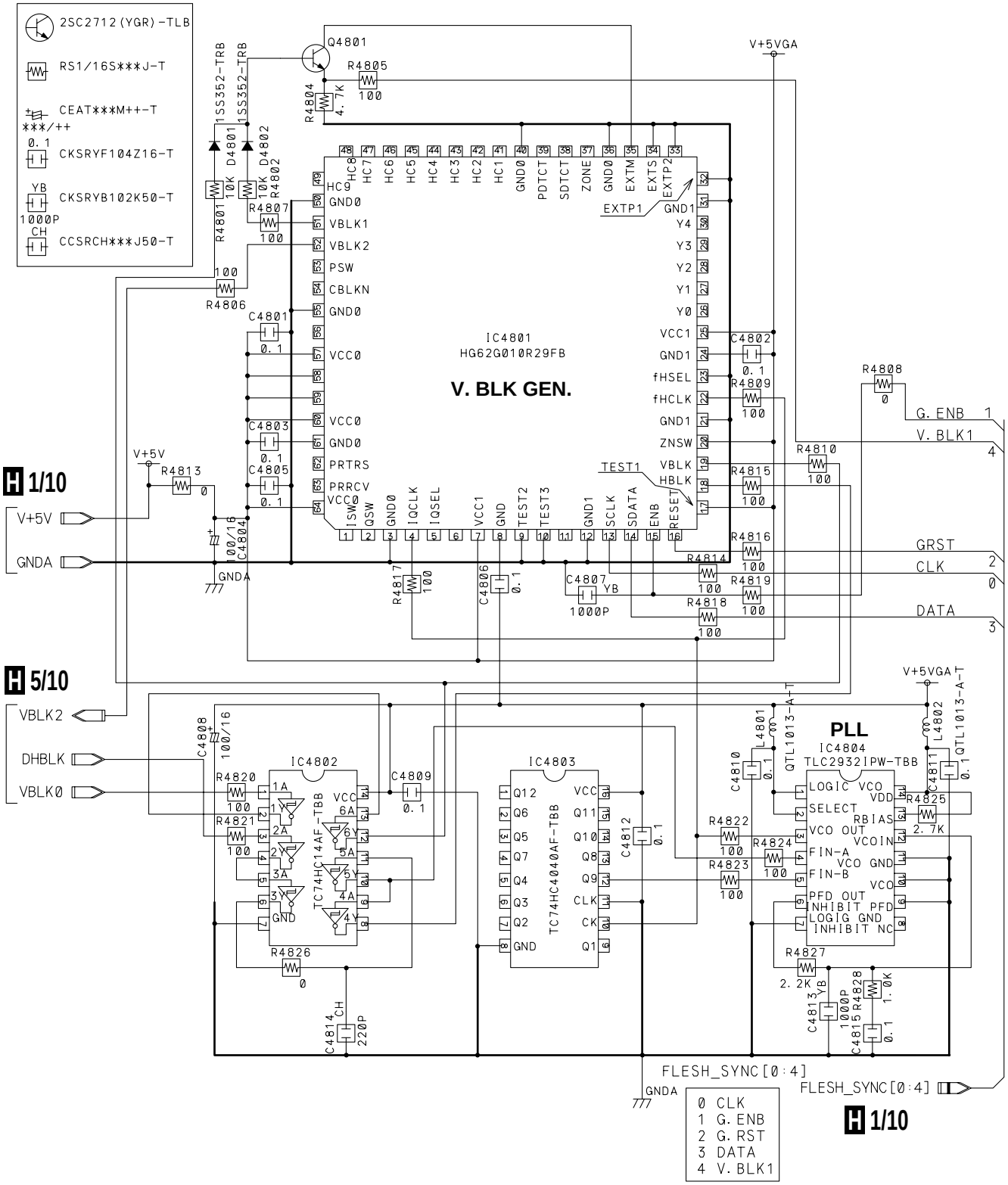
48 **Foot of R4488 (R-YD)**
V: 1V/div. H: 10µsec/div.



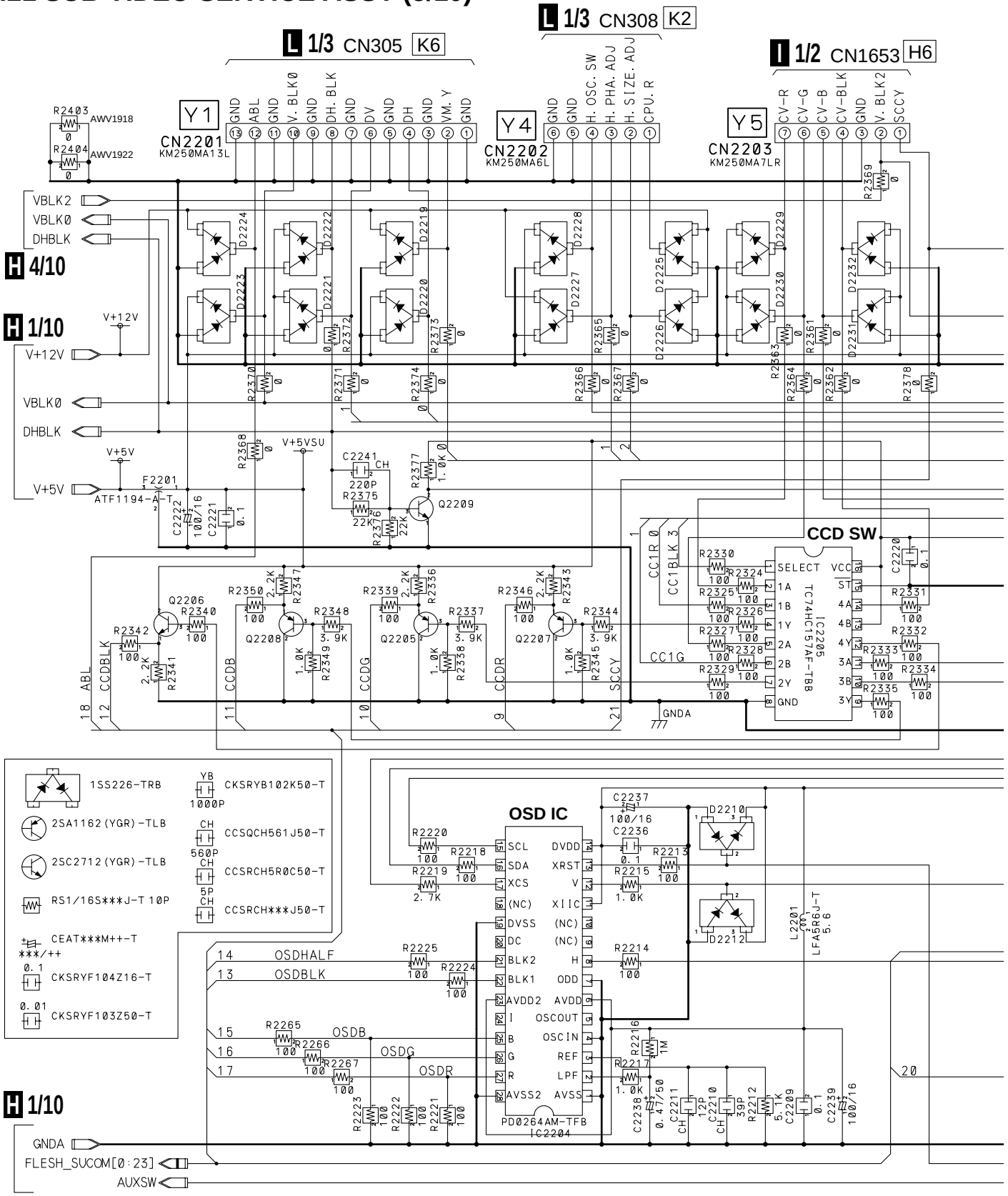
49 **Foot of R4489 (B-YD)**
V: 1V/div. H: 10µsec/div.



3.20 SUB VIDEO SERVICE ASSY (4/10)



3.21 SUB VIDEO SERVICE ASSY (5/10)

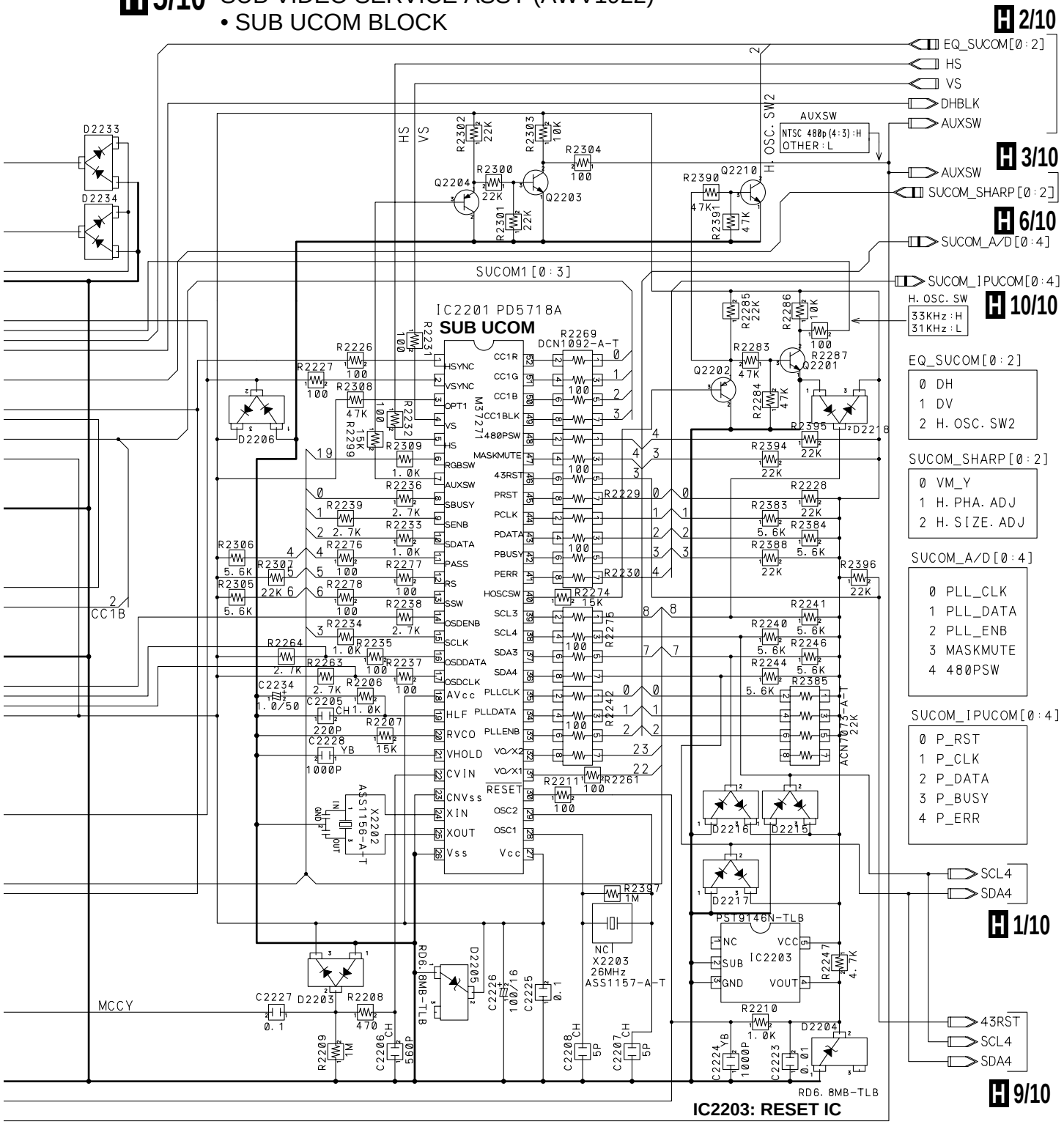


FLESH_SUCOM[0:23]

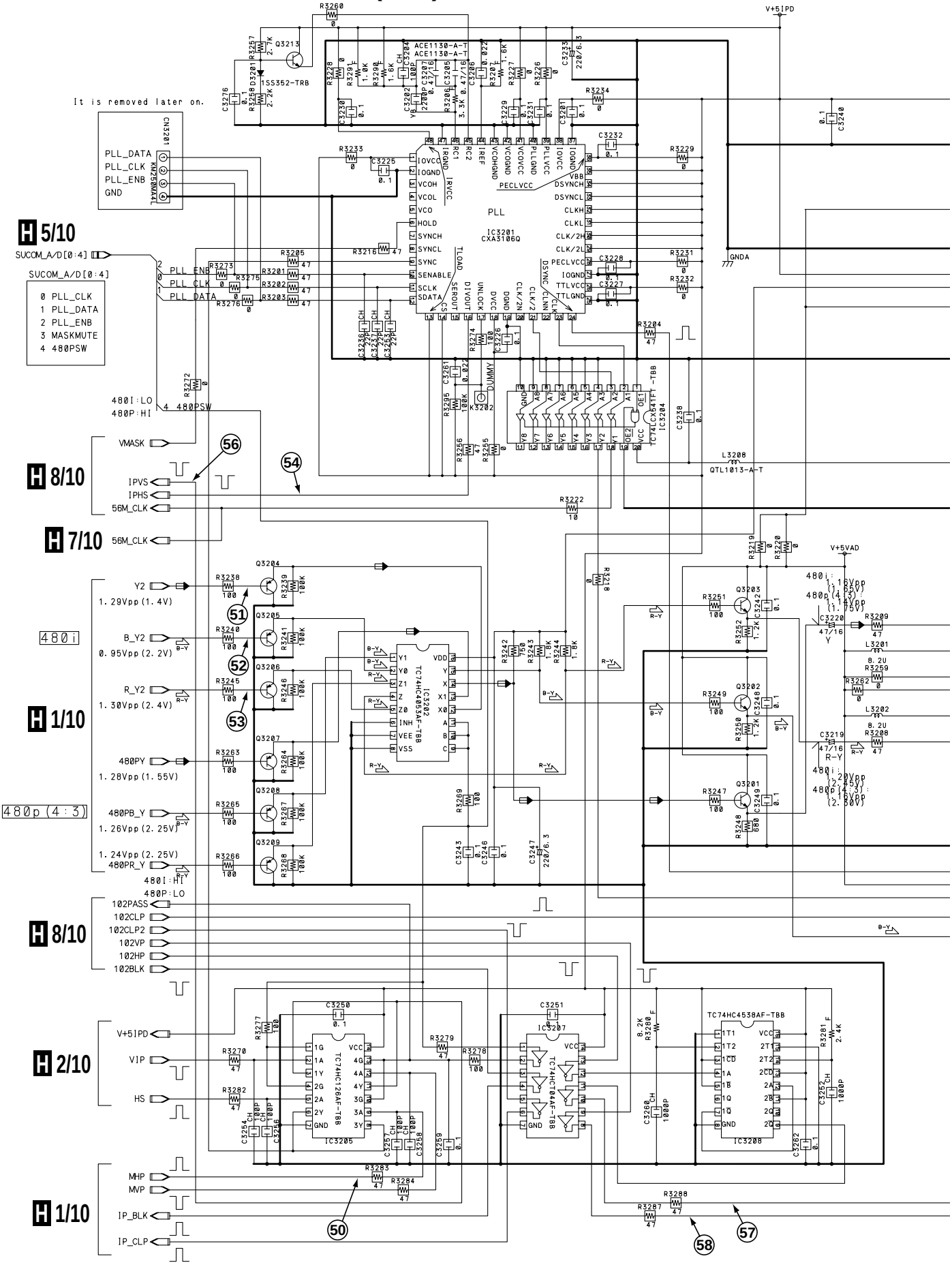
0	S_BUSY	3	S_CLK	6	S_SW	9	CCD.R	12	CCD.BLK	15	OSD.B	18	ABL	21	SCCY
1	S_ENB	4	PASS	7	SDA3	10	CCD.G	13	OSD.BLK	16	OSD.G	19	RGB.SW	22	V.OX1
2	S_DATA	5	RS	8	SCL3	11	CCD.B	14	OSD.HALF	17	OSD.R	20	MCCY	23	V.OX2

H 5/10 SUB VIDEO SERVICE ASSY (AWV1922)

• SUB UCOM BLOCK

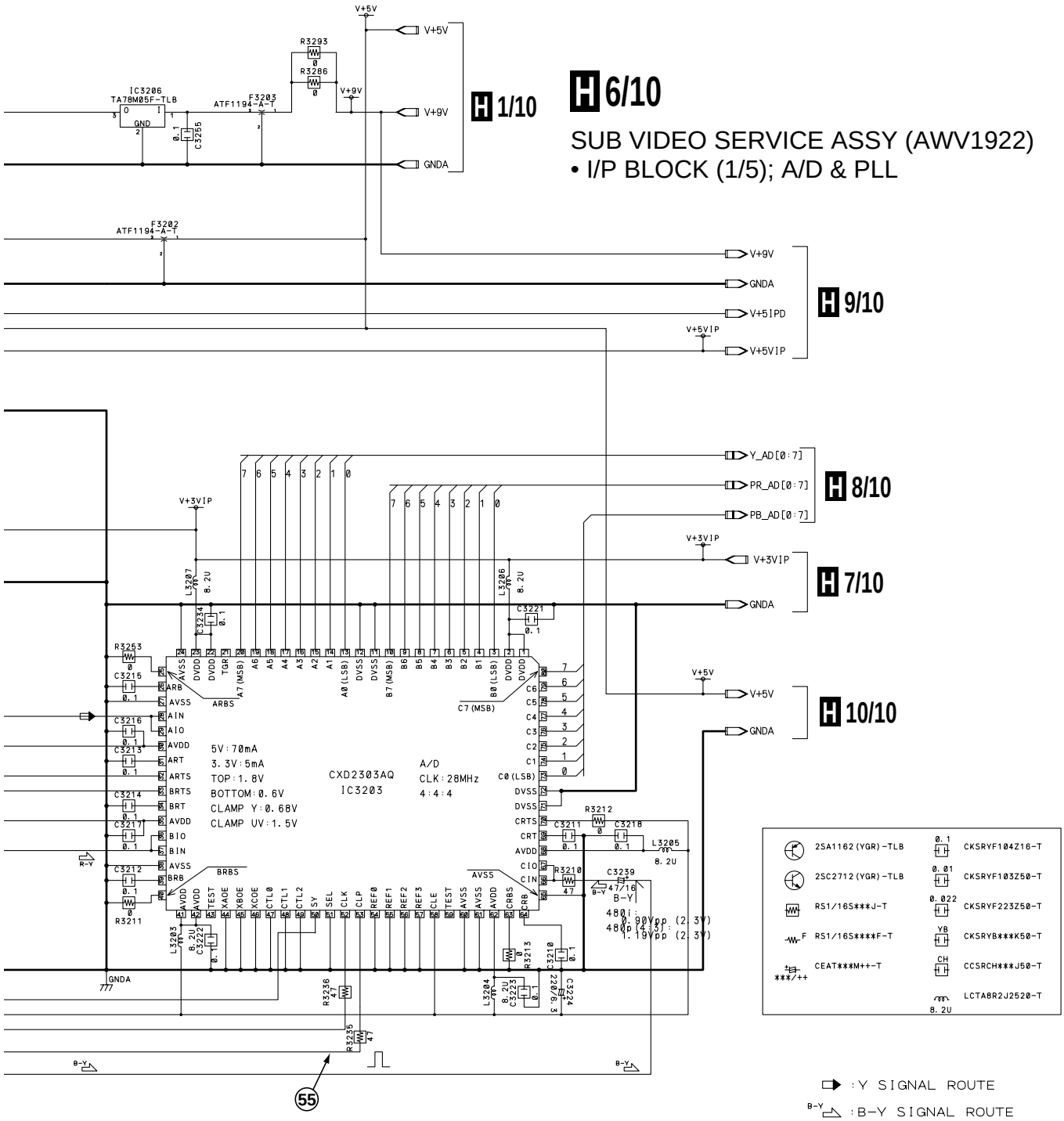


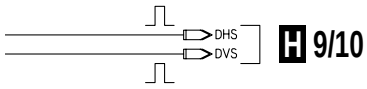
3.22 SUB VIDEO SERVICE ASSY (6/10)



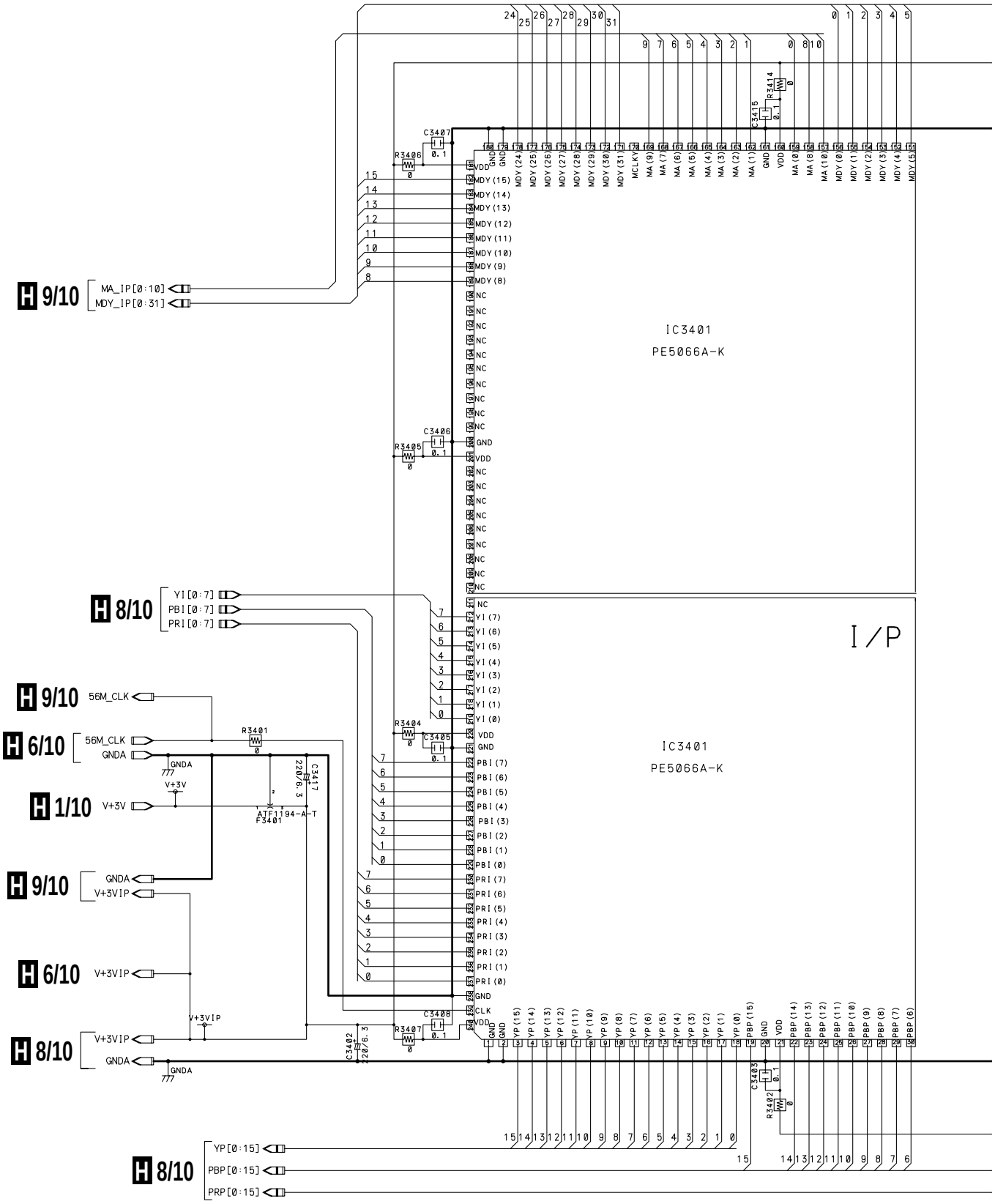
H 6/10

SUB VIDEO SERVICE ASSY (AWV1922)
• I/P BLOCK (1/5); A/D & PLL



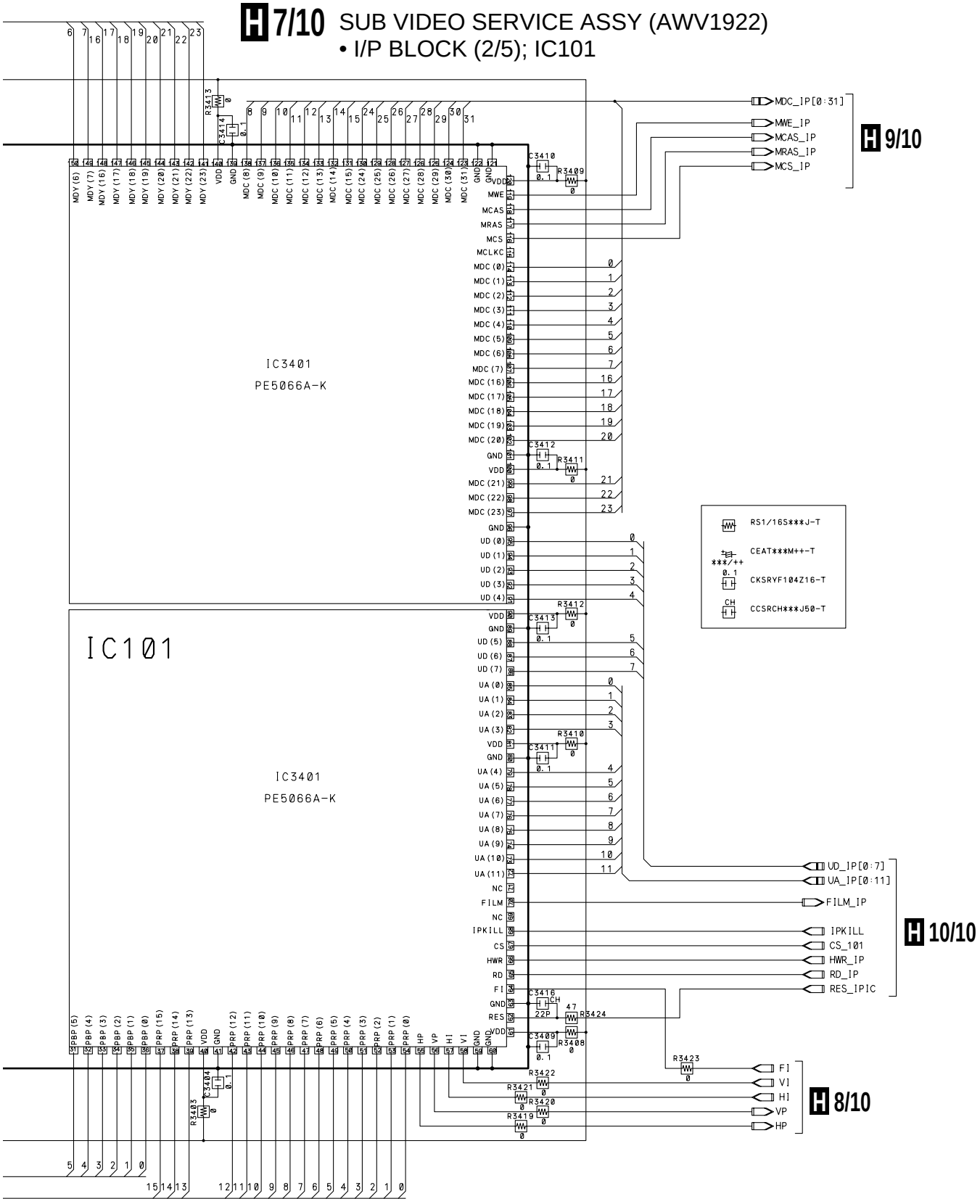


3.23 SUB VIDEO SERVICE ASSY (7/10)



H 7/10 SUB VIDEO SERVICE ASSY (AWV1922)

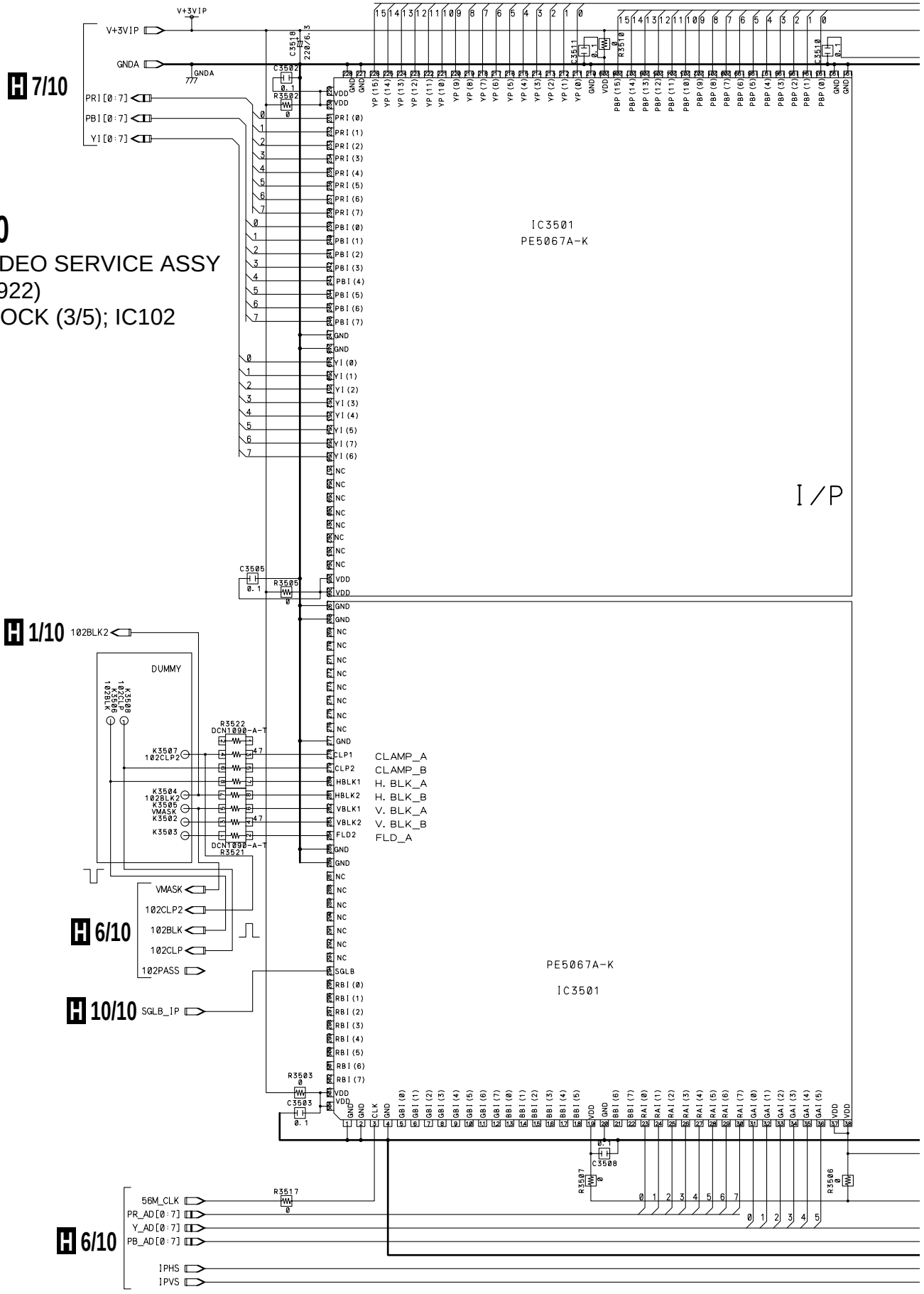
• I/P BLOCK (2/5); IC101

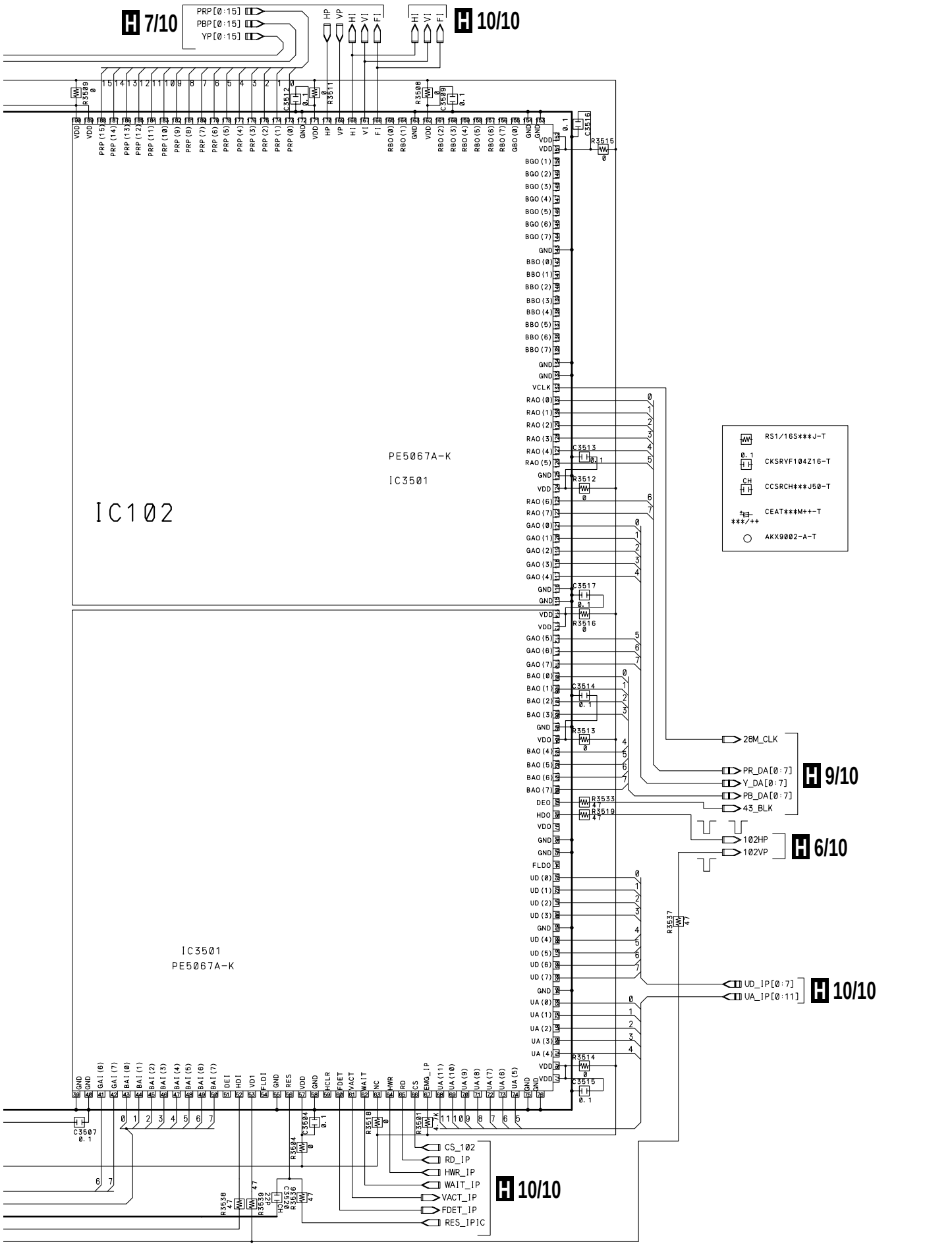


3.24 SUB VIDEO SERVICE ASSY (8/10)

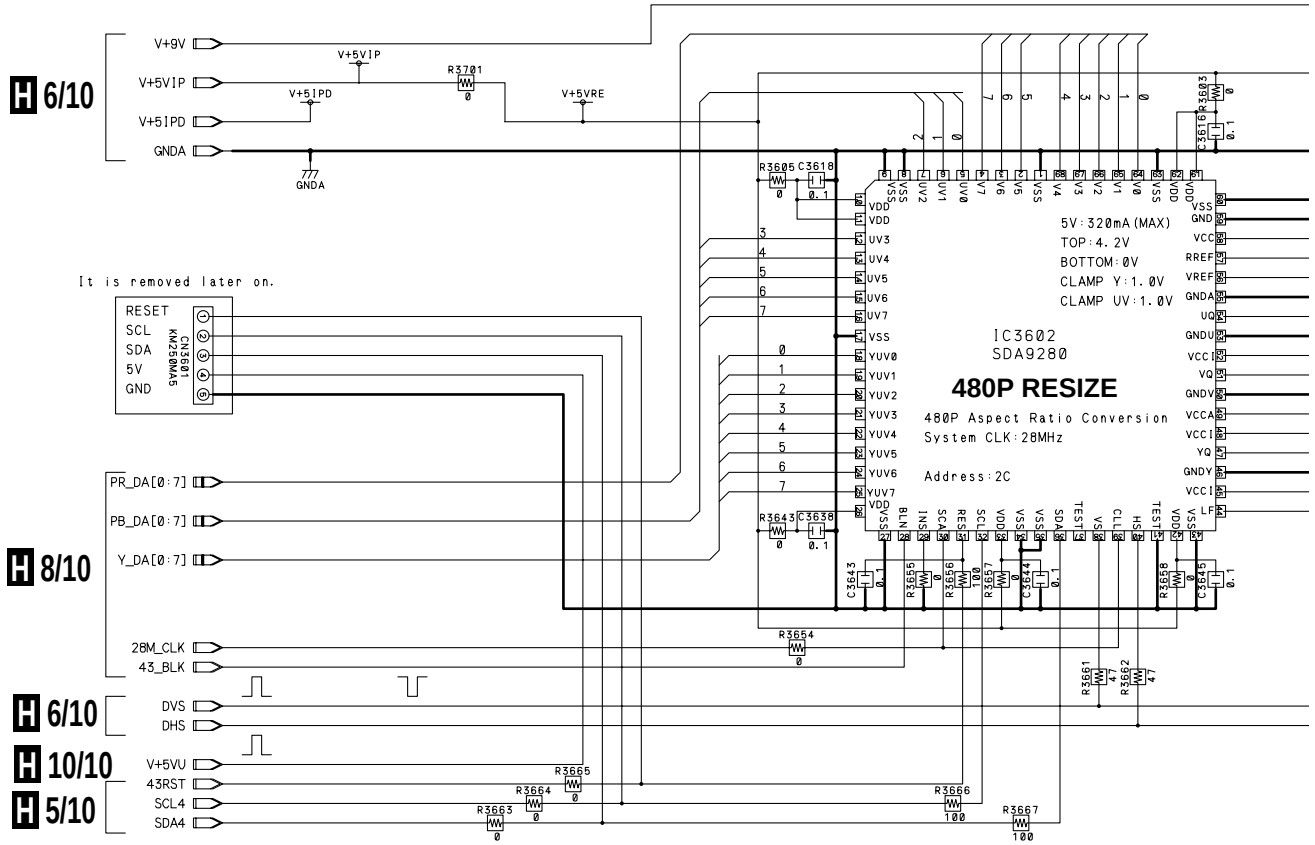
H 8/10

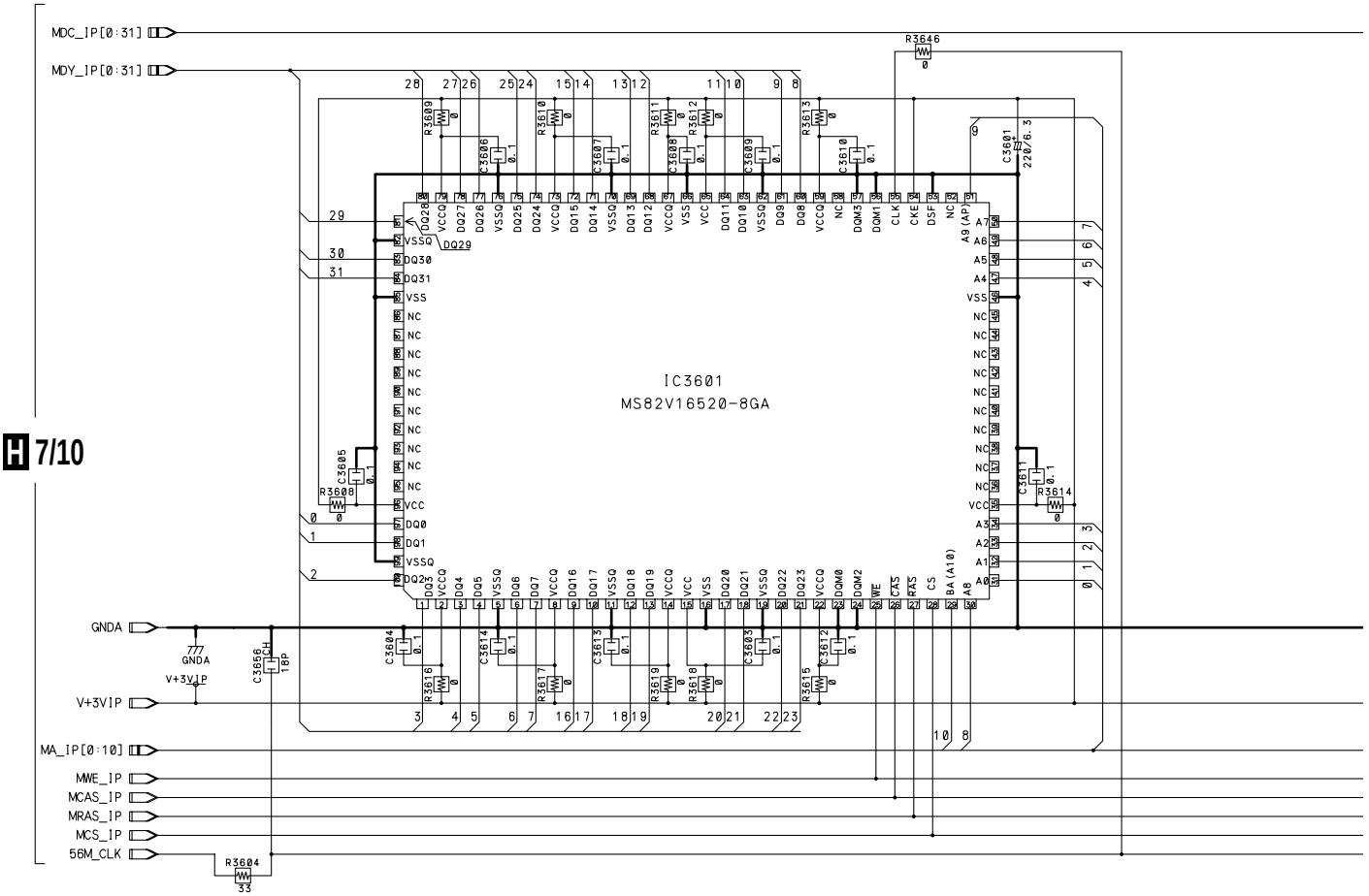
SUB VIDEO SERVICE ASSY
(AWV1922)
• I/P BLOCK (3/5); IC102




H 7/10
PRP[0:15]
PBP[0:15]
YP[0:15]
HP
VP
HI
VI
FI
H 10/10
IC102
PE5067A-K
IC3501
RS1/16S***J-T
CKSRYF104Z16-T
CCSRCH***J50-T
CEAT***M++-T
AKX9002-A-T
28M_CLK
PR_DA[0:7]
Y_DA[0:7]
PB_DA[0:7]
43_BLK
H 9/10
102HP
102VP
H 6/10
UD_IP[0:7]
UA_IP[0:11]
H 10/10
CS_102
RD_IP
HWR_IP
WAIT_IP
VACT_IP
FDET_IP
RES_IPIC
H 10/10

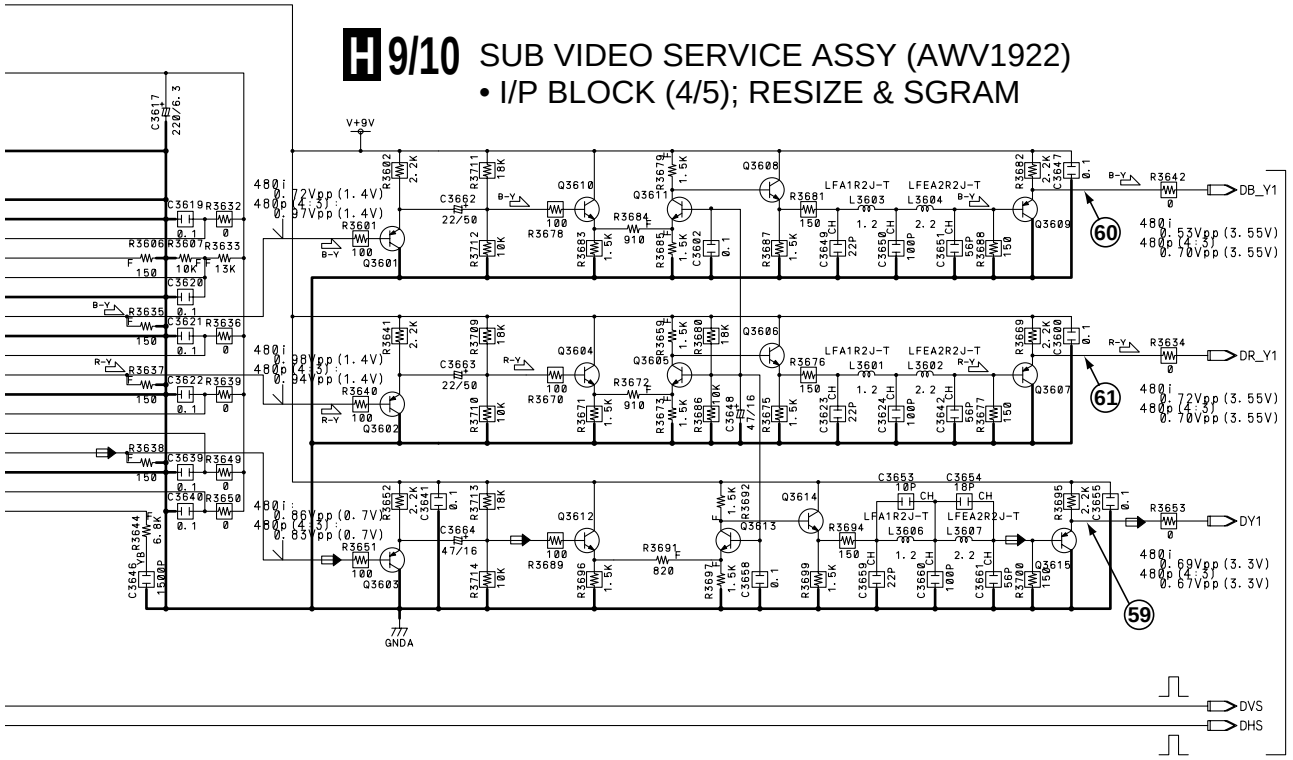
3.25 SUB VIDEO SERVICE ASSY (9/10)

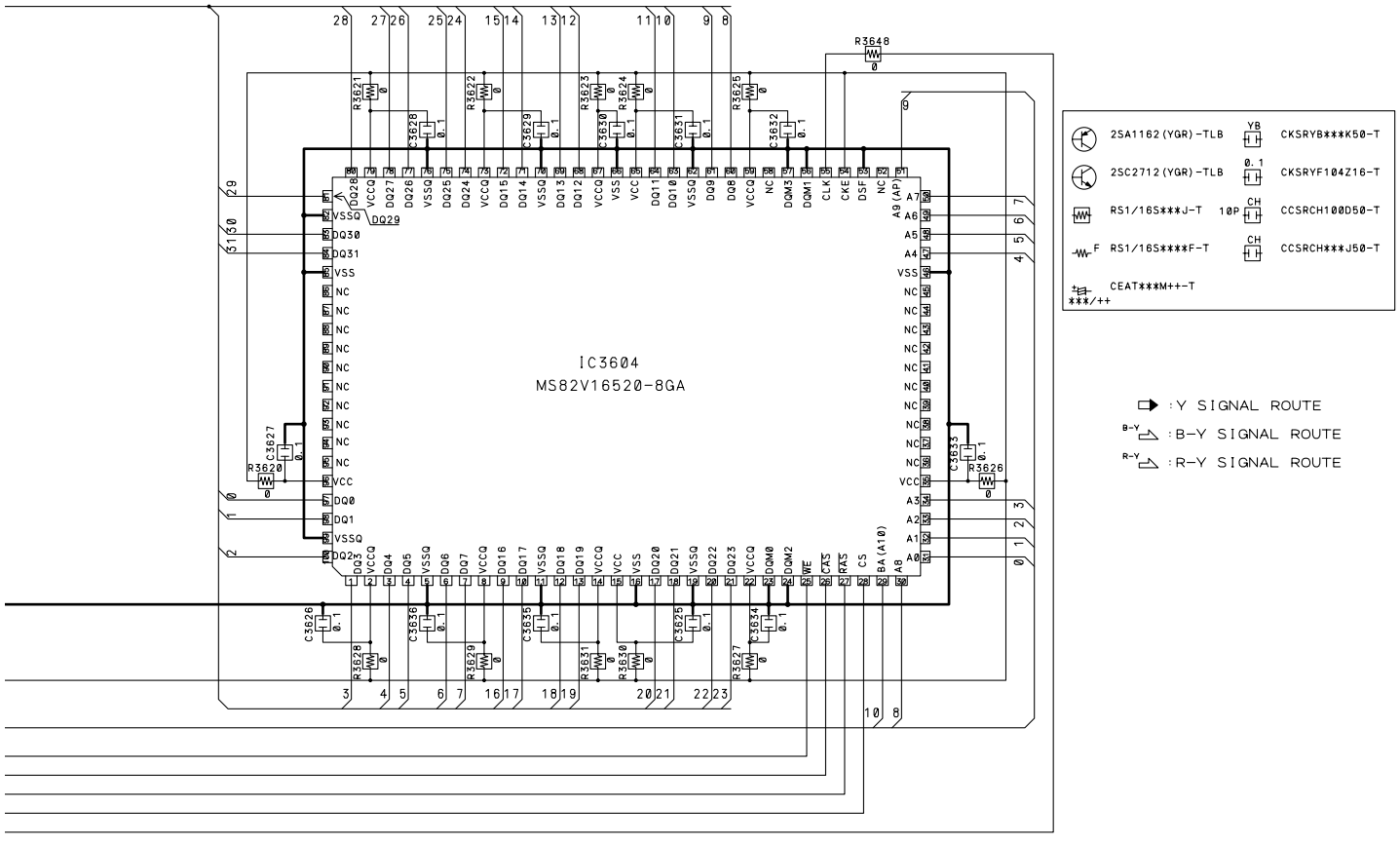




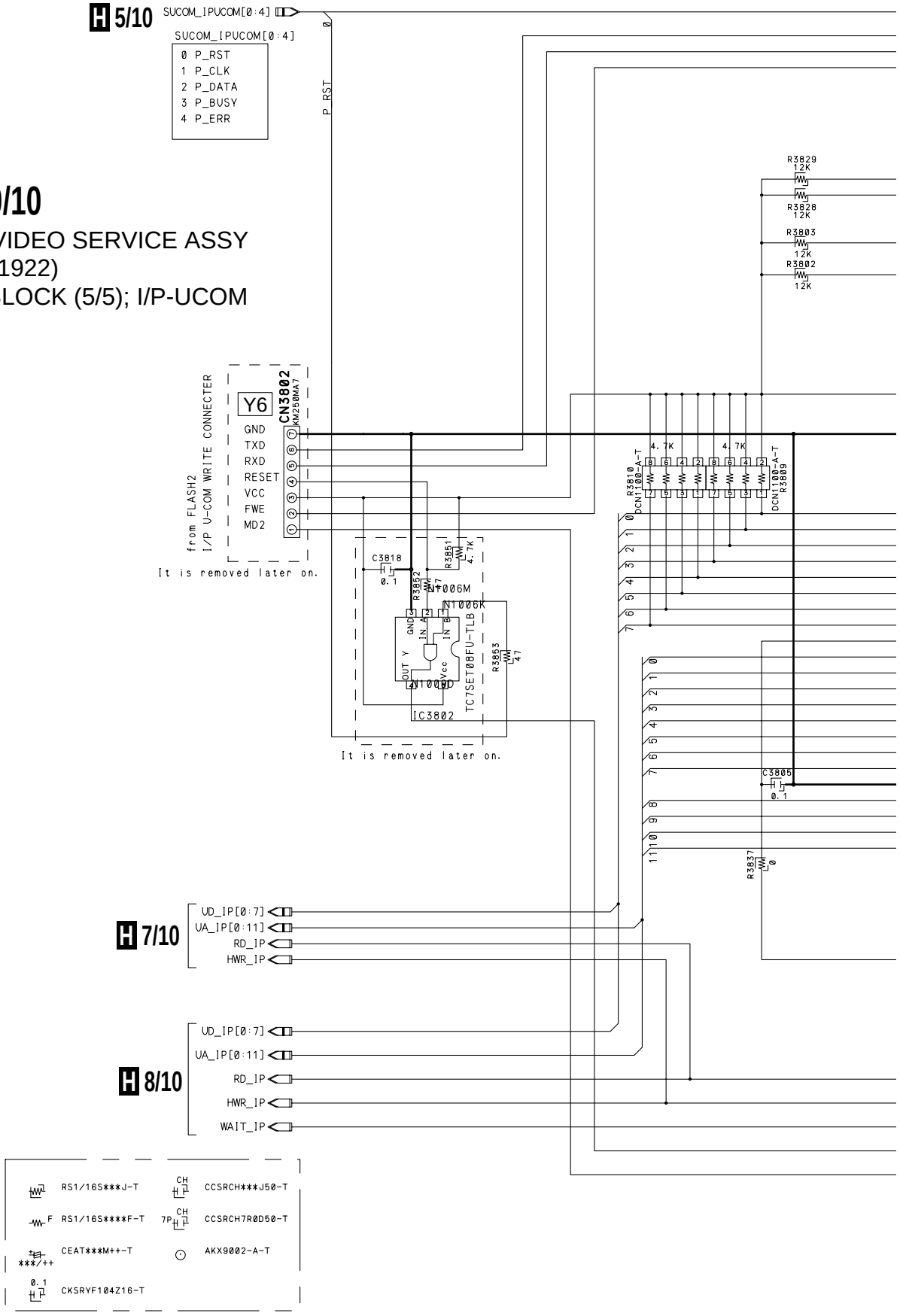
H 9/10 SUB VIDEO SERVICE ASSY (AWV1922)

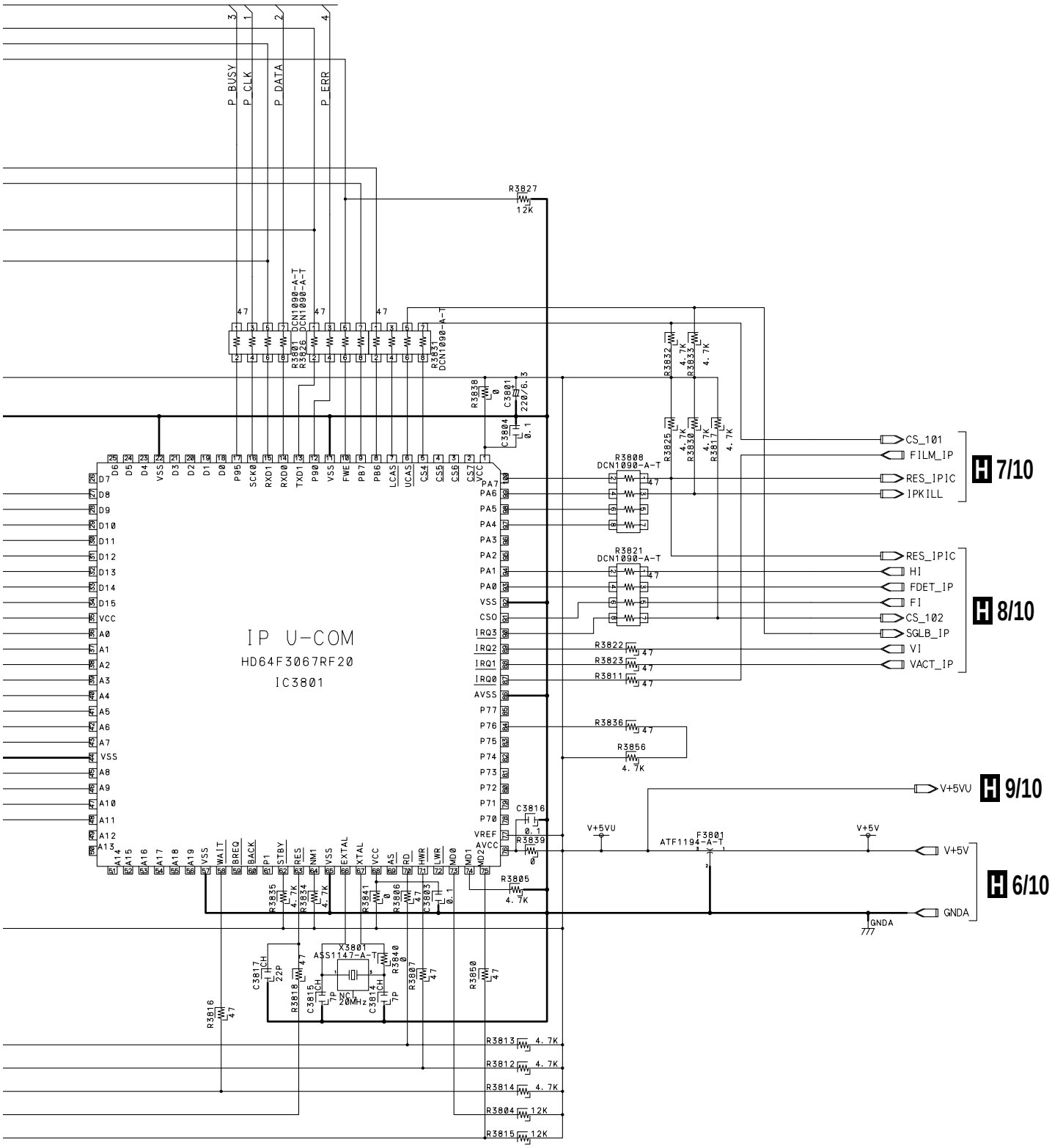
• I/P BLOCK (4/5); RESIZE & SGRAM





3.26 SUB VIDEO SERVICE ASSY (10/10)



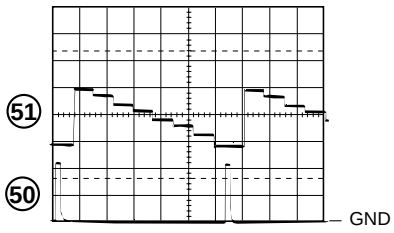

P BUSY
P CLK
P DATA
P ERR
IP U-COM
HD64F3067RF20
IC3801
CS_101
FILM_IP
RES_IP1C
IPKILL
H 7/10
RES_IP1C
HI
FDET_IP
FI
CS_102
SGLB_IP
VI
VACT_IP
H 8/10
V+5VU
H 9/10
V+5V
GNDA
H 6/10

H 6/10, 9/10

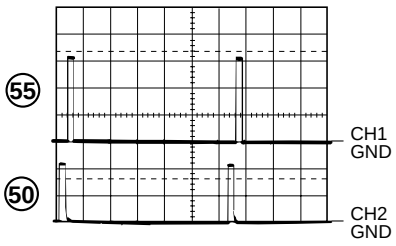
SUB VIDEO SERVICE ASSY (6/10 and 9/10)

Input signal
Video signal : EIA full field color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

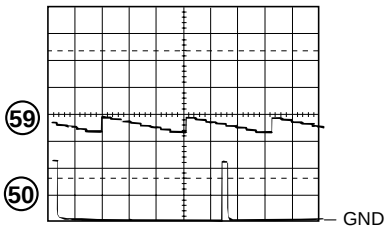
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
51 Q3204 Base (Y2)
V: 0.5V/div. H: 10µsec/div.



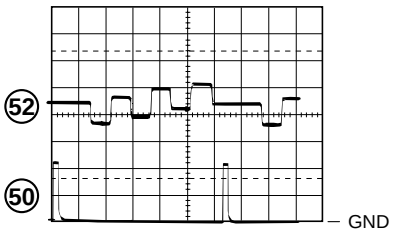
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
55 Foot of R3235 (102CLP)
V: 1V/div. H: 10µsec/div.



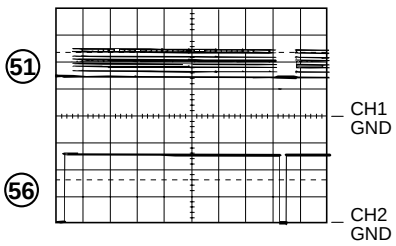
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
59 Q3615 Emitter (DY1)
V: 1V/div. H: 10µsec/div.



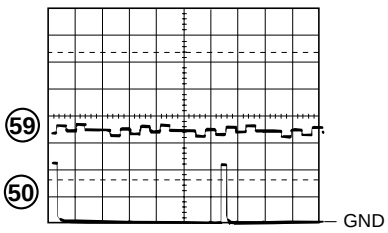
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
52 Q3205 Base (B-Y2)
V: 0.5V/div. H: 10µsec/div.



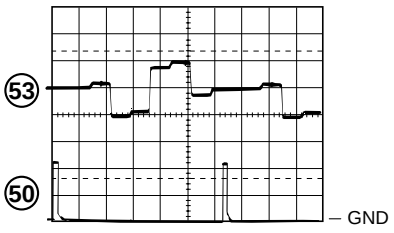
51 Q3204 Base (Y2)
V: 1V/div. H: 2msec/div.
56 IC3205-pins 3 and 11 (IPVS)
V: 2V/div. H: 2msec/div.



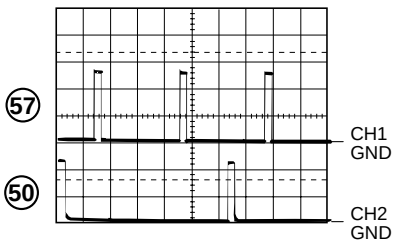
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
60 Q3609 Emitter (DB_Y1)
V: 1V/div. H: 10µsec/div.



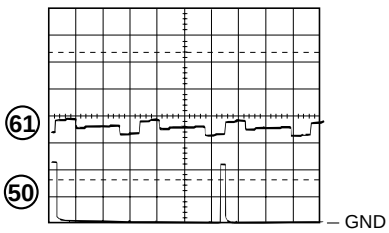
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
53 Q3206 Base (R-Y2)
V: 0.5V/div. H: 10µsec/div.



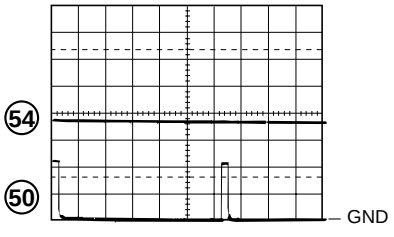
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
57 Foot of R3286 (DHS)
V: 2V/div. H: 10µsec/div.



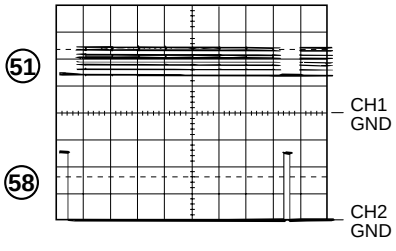
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
61 Q3607 Emitter (DR_Y1)
V: 1V/div. H: 10µsec/div.

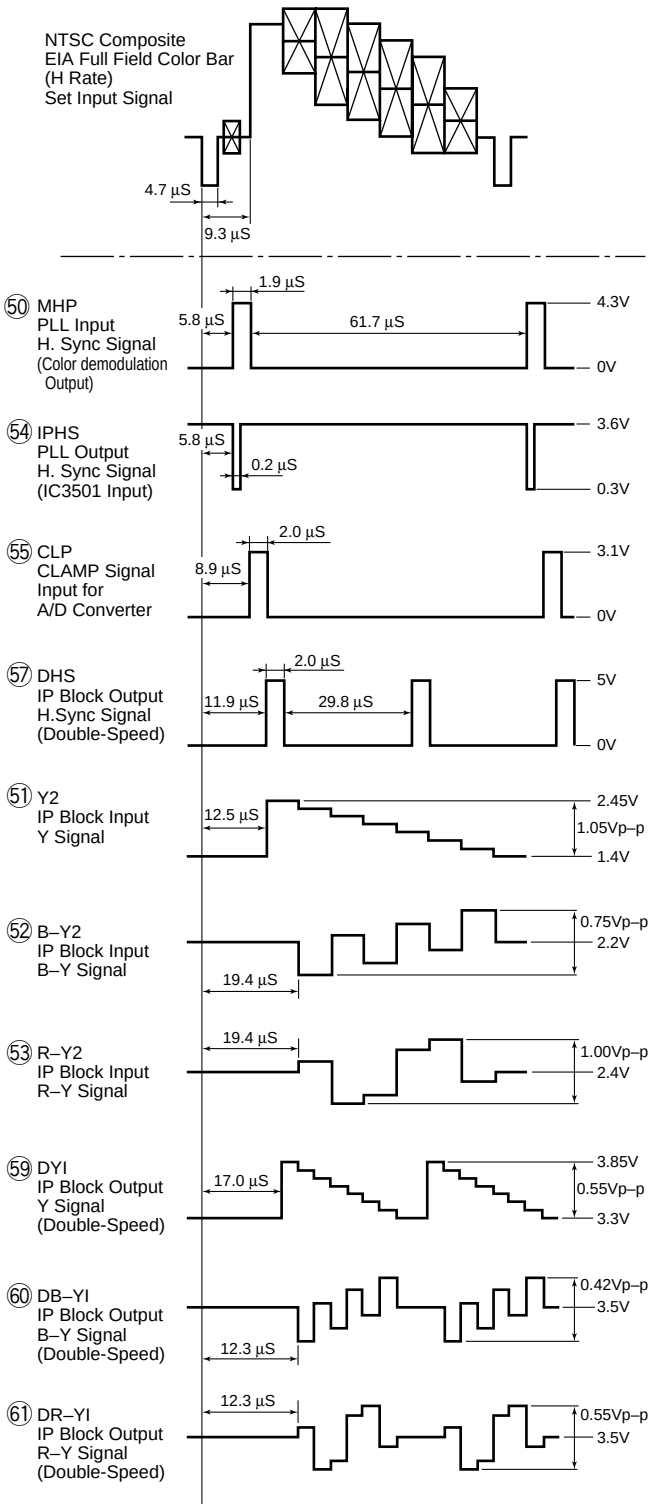


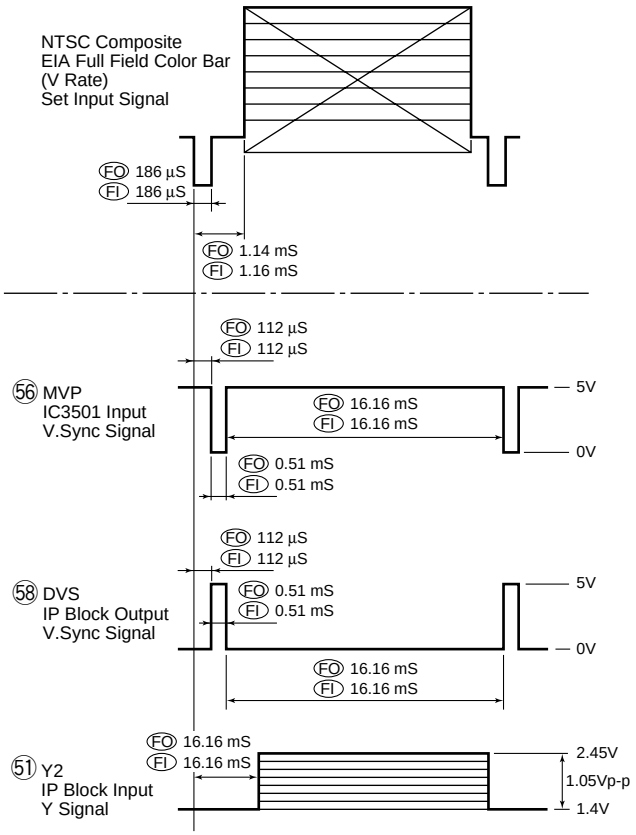
50 Foot of R3283 (MHP)
V: 2V/div. H: 10µsec/div.
54 Foot of R3256 (IPHS)
V: 1V/div. H: 10µsec/div.



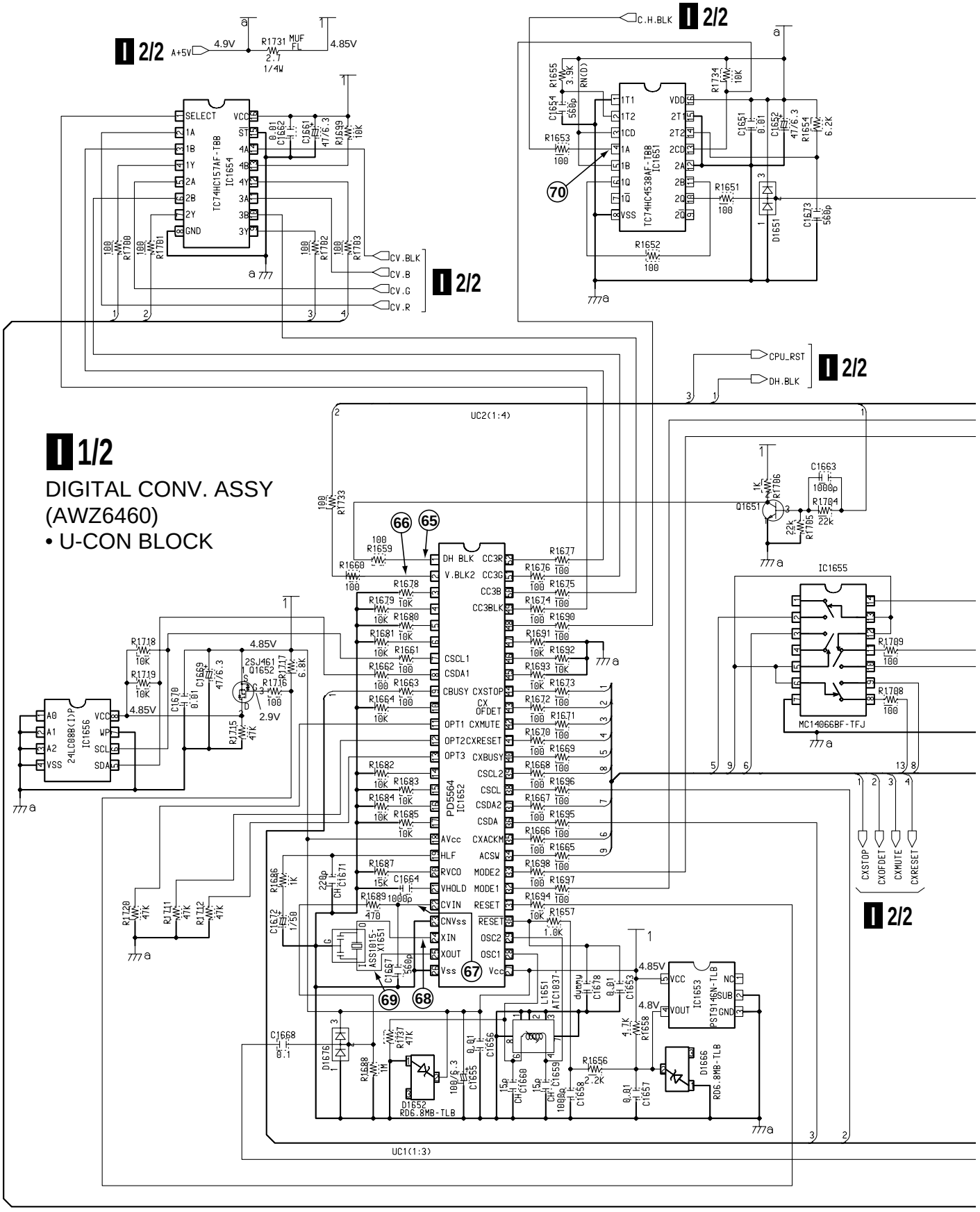
51 Q3204 Base (Y2)
V: 1V/div. H: 2msec/div.
58 Foot of R3284 (DVS)
V: 2V/div. H: 2msec/div.

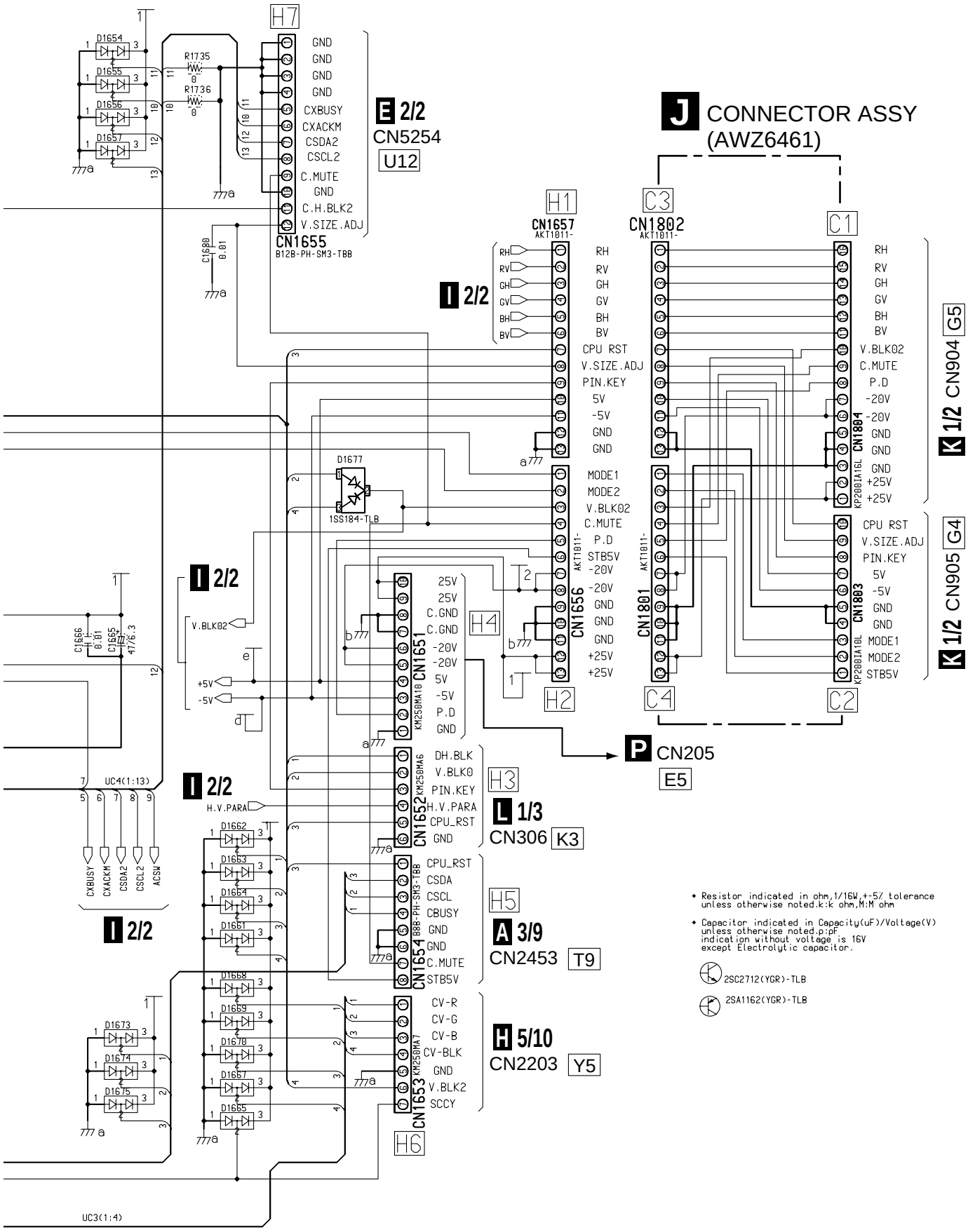



NTSC Composite
EIA Full Field Color Bar
(H Rate)
Set Input Signal
4.7 µS
9.3 µS
50 MHP
PLL Input
H. Sync Signal
(Color demodulation Output)
1.9 µS
5.8 µS
61.7 µS
4.3V
0V
54 IPHS
PLL Output
H. Sync Signal
(IC3501 Input)
5.8 µS
0.2 µS
3.6V
0.3V
55 CLP
CLAMP Signal
Input for
A/D Converter
2.0 µS
8.9 µS
3.1V
0V
57 DHS
IP Block Output
H.Sync Signal
(Double-Speed)
2.0 µS
11.9 µS
29.8 µS
5V
0V
51 Y2
IP Block Input
Y Signal
12.5 µS
2.45V
1.05Vp–p
1.4V
52 B–Y2
IP Block Input
B–Y Signal
0.75Vp–p
2.2V
19.4 µS
53 R–Y2
IP Block Input
R–Y Signal
19.4 µS
1.00Vp–p
2.4V
59 DYI
IP Block Output
Y Signal
(Double-Speed)
17.0 µS
3.85V
0.55Vp–p
3.3V
60 DB–YI
IP Block Output
B–Y Signal
(Double-Speed)
0.42Vp–p
3.5V
12.3 µS
61 DR–YI
IP Block Output
R–Y Signal
(Double-Speed)
12.3 µS
0.55Vp–p
3.5V

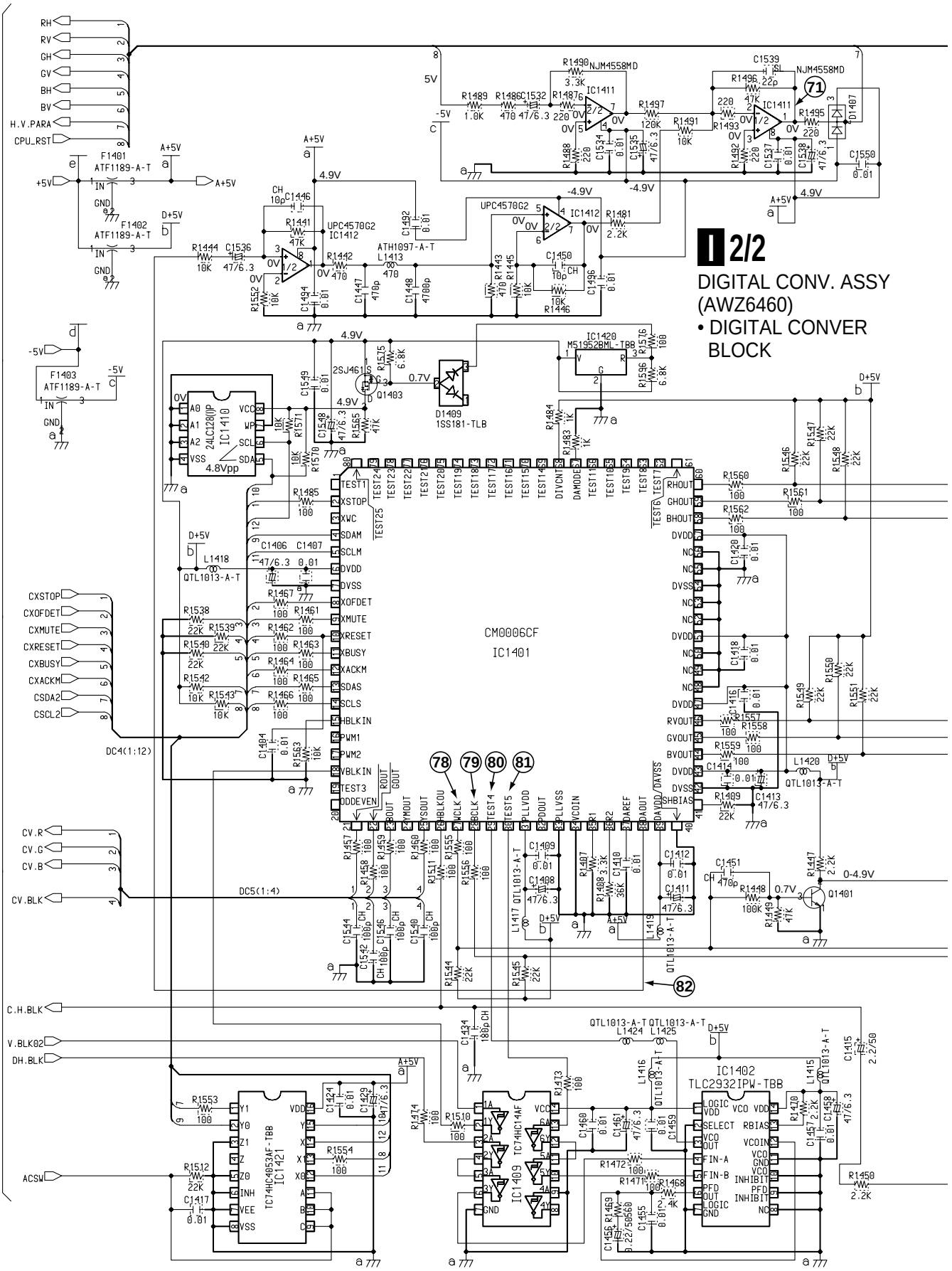

NTSC Composite
EIA Full Field Color Bar
(V Rate)
Set Input Signal
FO 186 µS
FI 186 µS
FO 1.14 mS
FI 1.16 mS
FO 112 µS
FI 112 µS
56 MVP
IC3501 Input
V.Sync Signal
FO 16.16 mS
FI 16.16 mS
5V
0V
FO 0.51 mS
FI 0.51 mS
FO 112 µS
FI 112 µS
58 DVS
IP Block Output
V.Sync Signal
FO 0.51 mS
FI 0.51 mS
5V
0V
FO 16.16 mS
FI 16.16 mS
FO 16.16 mS
FI 16.16 mS
51 Y2
IP Block Input
Y Signal
2.45V
1.05Vp-p
1.4V

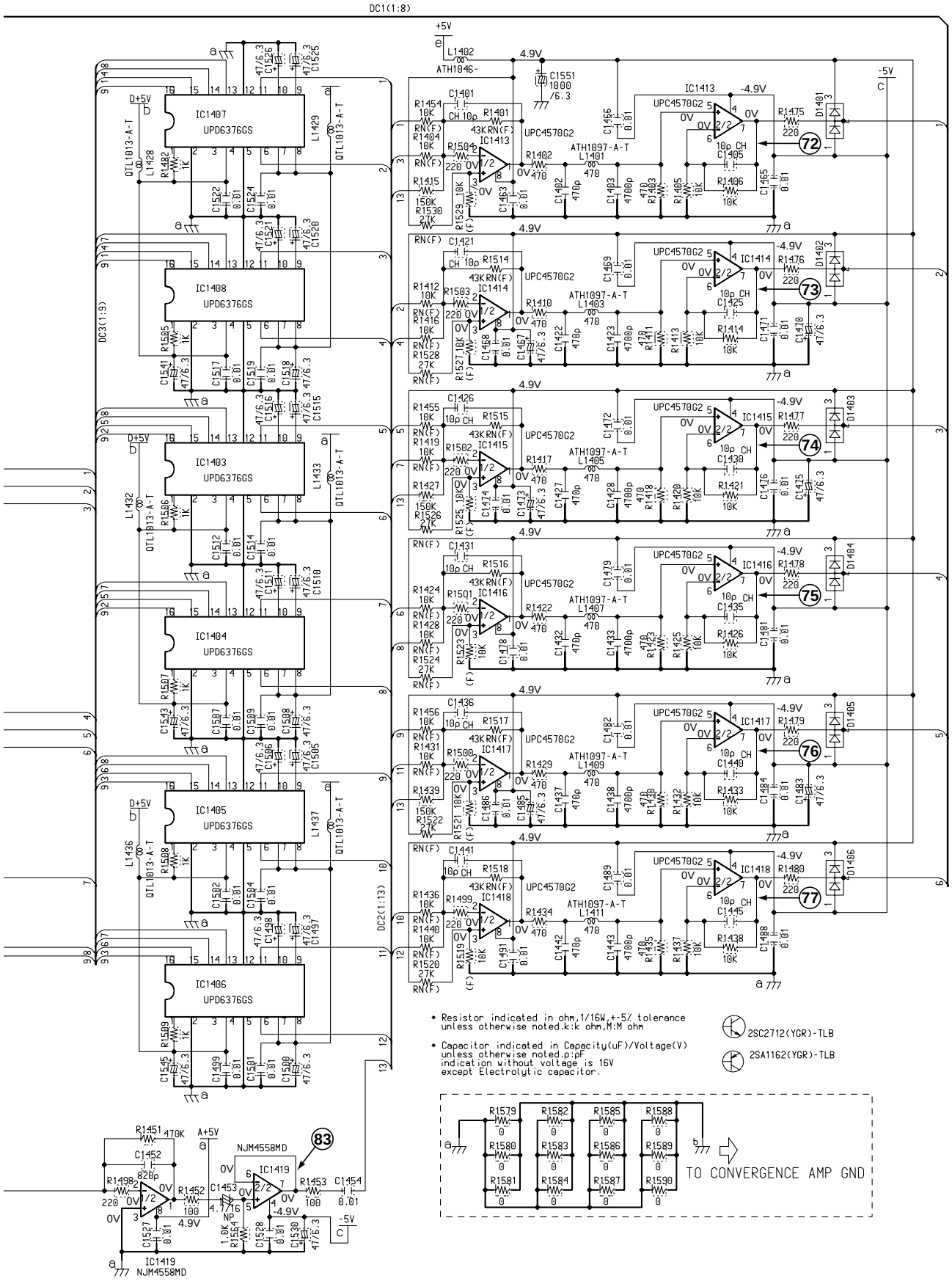
3.27 DIGITAL CONV. (1/2) and CONNECTOR ASSYS




J CONNECTOR ASSY (AWZ6461)
H7
CN1655
B12B-PH-SM3-TBB
GND
GND
GND
GND
CXBUSY
CXACKM
CSDA2
CSCL2
C.MUTE
GND
C.H.BLK2
V.SIZE.ADJ
E 2/2
CN5254
U12
H1
CN1657
AKT1011-
C3
CN1802
AKT1011-
C1
RH
RV
GH
GV
BH
BV
CPU RST
V.SIZE.ADJ
PIN.KEY
5V
-5V
GND
GND
I 2/2
MODE1
MODE2
V.BLK02
C.MUTE
P.D
STB5V
-20V
-20V
GND
GND
+25V
+25V
CN1656
CN1801
CN1804
CN1803
KP2001A16L
K 1/2 CN904 G5
K 1/2 CN905 G4
CPU RST
V.SIZE.ADJ
PIN.KEY
5V
-5V
GND
GND
MODE1
MODE2
STB5V
V.BLK02
C.MUTE
P.D
-20V
-20V
GND
GND
GND
+25V
+25V
H2
C4
C2
P CN205
E5
H4
CN1651
KM250MA10
25V
25V
C.GND
C.GND
-20V
-20V
5V
-5V
P.D
GND
H3
CN1652
KM250MA6
DH.BLK
V.BLK0
PIN.KEY
H.V.PARA
CPU_RST
GND
L 1/3
CN306 K3
H5
CN1654
B8B-PH-SM3-TBB
CPU_RST
CSDA
CSCL
CBUSY
GND
GND
C.MUTE
STB5V
A 3/9
CN2453 T9
H6
CN1653
KM250MA7
CV-R
CV-G
CV-B
CV-BLK
GND
V.BLK2
SCCY
H 5/10
CN2203 Y5
D1654
D1655
D1656
D1657
R1735
R1736
C1680
0.01
D1677
1SS184-TLB
C1666
C1665
47/6.3
UC4(1:13)
CXBUSY
CXACKM
CSDA2
CSCL2
ACSW
I 2/2
V.BLK02
+5V
-5V
H.V.PARA
D1662
D1663
D1664
D1661
D1668
D1669
D1670
D1667
D1665
D1673
D1674
D1675
UC3(1:4)
• Resistor indicated in ohm,1/16W,+-5% tolerance unless otherwise noted.k:k ohm,M:M ohm
• Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 16V except Electrolytic capacitor.
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB

3.28 DIGITAL CONV. ASSY (2/2)

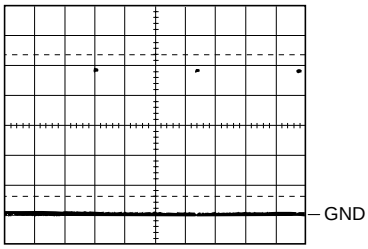



DC1(1:8)
DC3(1:9)
DC2(1:13)
+5V
-5V
4.9V
IC1407
IC1408
IC1403
IC1404
IC1405
IC1406
UPD6376GS
IC1413
IC1414
IC1415
IC1416
IC1417
IC1418
UPC4570G2
ATH1097-A-T
QTL1013-A-T
NJM4558MD
IC1419
• Resistor indicated in ohm,1/16W,+-5% tolerance unless otherwise noted.k:k ohm,M:M ohm
• Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 16V except Electrolytic capacitor.
2SC2712(YGR)-TLB
2SA1162(YGR)-TLB
TO CONVERGENCE AMP GND

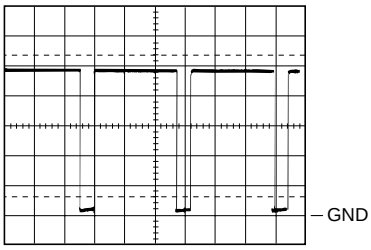
G DIGITAL CONV. ASSY

Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

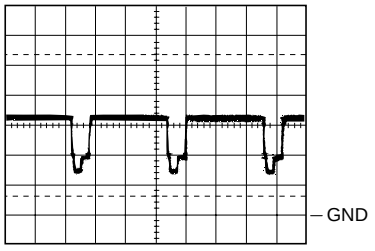
65 **IC1652 pin 1 (DH. BLK input)**
V: 1V/div. H: 10µsec/div.



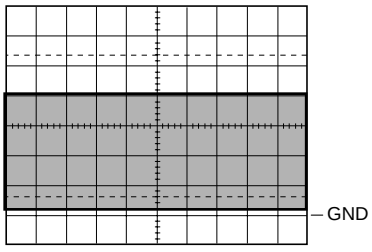
66 **IC1652 pin 2 (V. BLKØ input)**
V: 1V/div. H: 5msec/div.



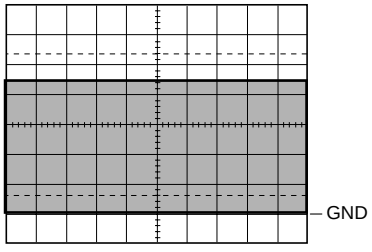
67 **IC1652 pin 22 (Y input)**
V: 1V/div. H: 20µsec/div.



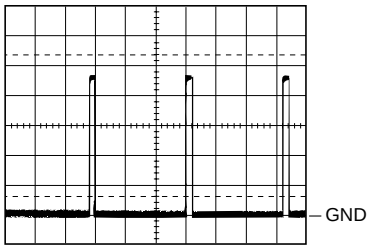
68 **IC1652 pin 24 (X input)**
V: 1V/div. H: 100µsec/div.



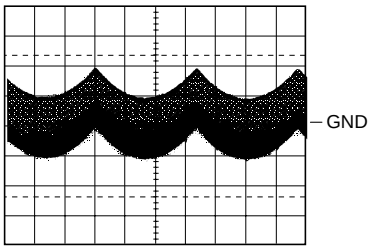
69 **IC1652 pin 25 (X output)**
V: 1V/div. H: 100µsec/div.



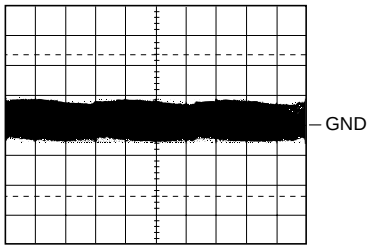
70 **IC1651 pin 4 (CH. BLK input)**
V: 1V/div. H: 100µsec/div.



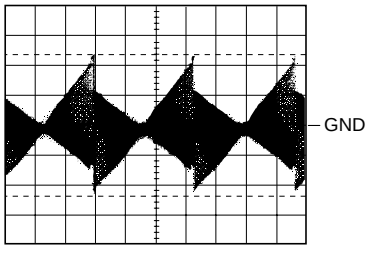
71 **IC1411 pin 1 (DF output)**
V: 2V/div. H: 5msec/div.



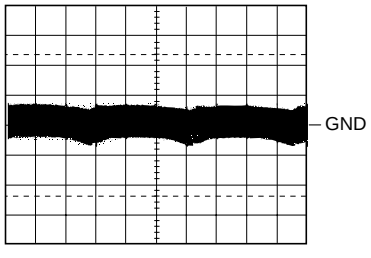
72 **IC1413 pin 7 (RH output)**
V: 1V/div. H: 5msec/div.



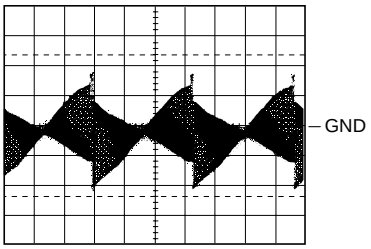
73 **IC1414 pin 7 (RV output)**
V: 1V/div. H: 5msec/div.



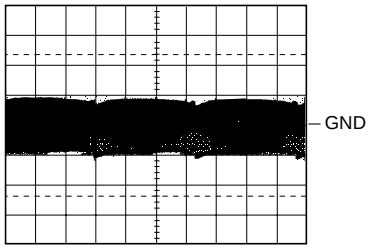
74 **IC1415 pin 7 (GH output)**
V: 1V/div. H: 5msec/div.



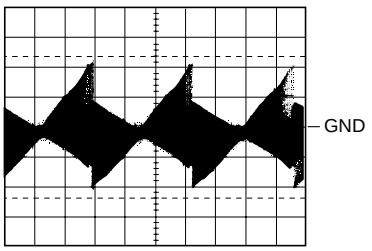
75 **IC1416 pin 7 (GV output)**
V: 1V/div. H: 5msec/div.



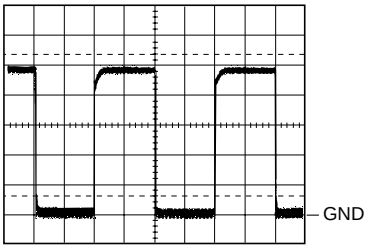
76 **IC1417 pin 7 (BH output)**
V: 1V/div. H: 5msec/div.



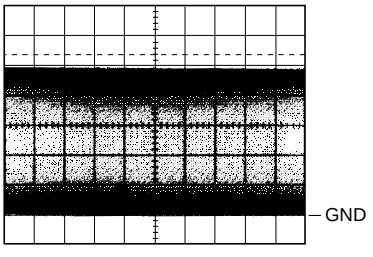
77 **IC1418 pin 7 (BV output)**
V: 1V/div. H: 5msec/div.



78 **IC1401 pin 27 (WCLK for D/A)**
V: 1V/div. H: 1µsec/div.

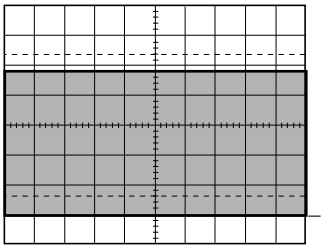


79 **IC1401 pin 28 (BCLK for D/A)**
V: 1V/div. H: 1µsec/div.

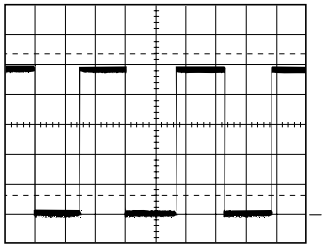


I 2/2 DIGITAL CONV. ASSY (2/2)

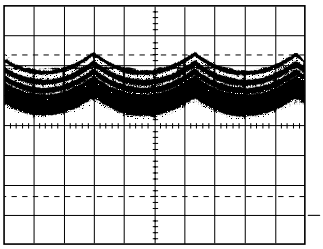
80 **IC1401 pin 29 (PLL CLK (35MHz))**
V: 1V/div. H: 1µsec/div.



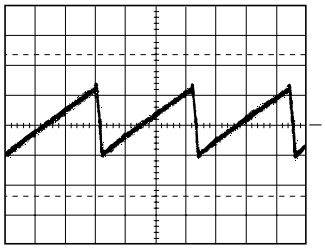
81 **IC1401 pin 30**
(Output after PLL division)
V: 1V/div. H: 1µsec/div.



82 **IC1401 pin 38 (DF output)**
V: 0.5V/div. H: 5msec/div.



83 **IC1419 pin 7 (For H pulse cancel)**
V: 1V/div. H: 10µsec/div.



IC1401 (CM0006CF)

Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)	Pin No.	Voltage (V)
1	4.9	21	0	41	1.2	61	4.9
2	4.85	22	0	42	0	62	4.9
3	0	23	0	43	4.9	63	4.9
4	4.8Vpp	24	0	44	4.9Vpp	64	4.9
5	4.8Vpp	25	0	45	4.9Vpp	65	4.9
6	4.9	26	4.6Vpp	46	4.9Vpp	66	4.9
7	0	27	4.8Vpp	47	4.9	67	0
8	4.85	28	4.8Vpp	48	0	68	4.8
9	4.8	29	4.8Vpp	49	0	69	4.9
10	4.8	30	4.8Vpp	50	0	70	4.9
11	4.8Vpp	31	4.9	51	4.9	71	4.9
12	4.8Vpp	32	0	52	0	72	4.9
13	4.8Vpp	33	0	53	0	73	4.9
14	4.8Vpp	34	0	54	0	74	4.9
15	0	35	1.2	55	0	75	4.9
16	2.4	36	0	56	0	76	4.9
17	2.4	37	3.2	57	4.9	77	4.9
18	4.9Vpp	38	1Vpp	58	4.9Vpp	78	4.9
19	4.9	39	4.9	59	4.9Vpp	79	4.9
20	4.9	40	0	60	4.9Vpp	80	4.9

IC1421 (TC74HC4053AF)

Pin No.	Voltage (V)
1	4.8Vpp
2	4.8Vpp
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0
11	0
12	4.8Vpp
13	4.8Vpp
14	4.8Vpp
15	4.8Vpp
16	4.9

IC1403,IC1405, IC1407 (UPD6376GS)

Pin No.	Voltage (V)
1	4.85
2	0
3	0
4	4.9
5	0
6	1.6
7	4.9
8	4.9
9	2.1
10	2.1
11	1.6
12	0
13	2.4
14	2.1
15	2.2
16	2.1

IC1409 (TC74HC14AF)

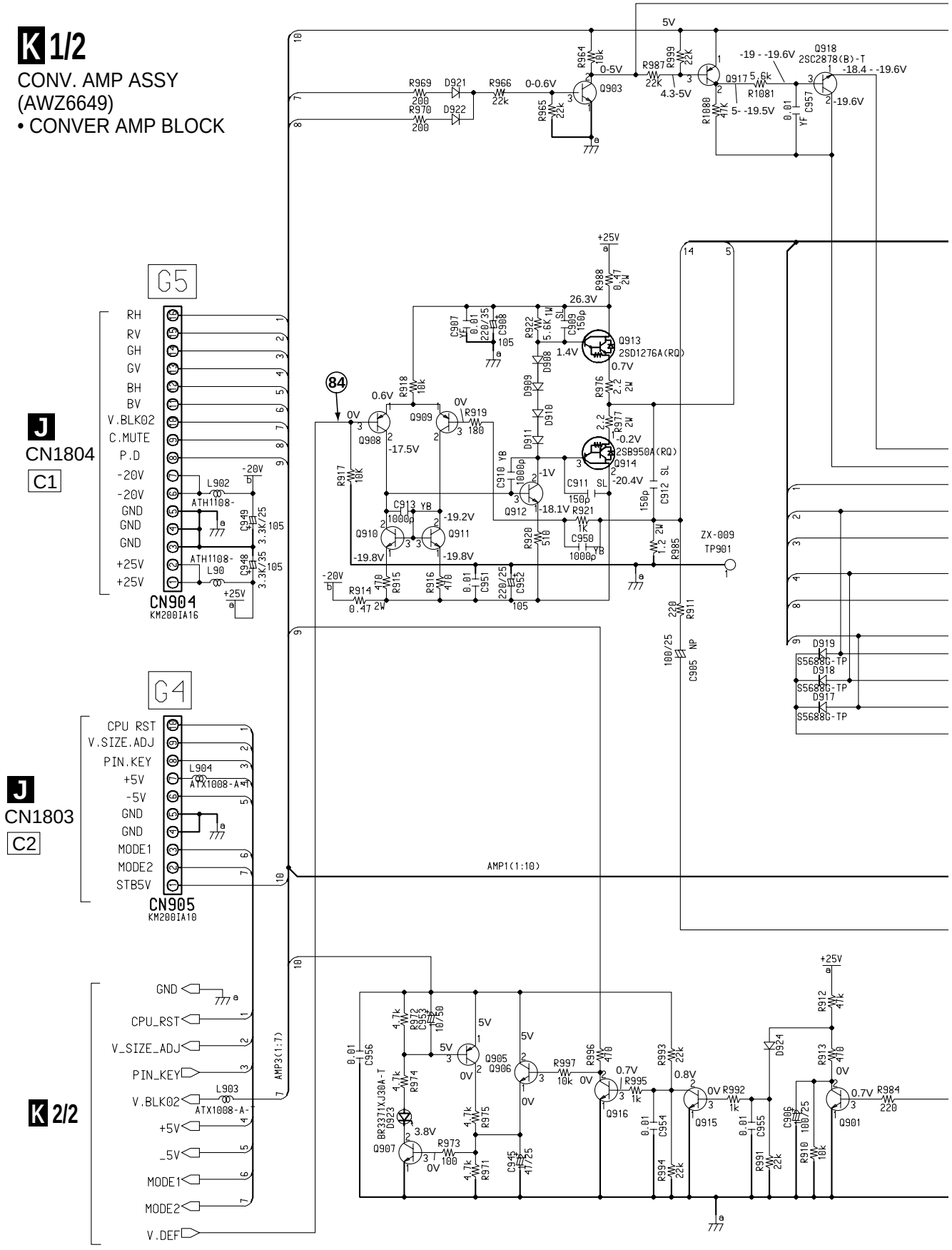
Pin No.	Voltage (V)
1	4.8Vpp
2	4.8Vpp
3	4.8Vpp
4	4.9Vpp
5	4.9Vpp
6	4.9Vpp
7	0
8	0
9	0
10	4.9Vpp
11	4.9Vpp
12	4.9Vpp
13	4.9Vpp
14	4.9

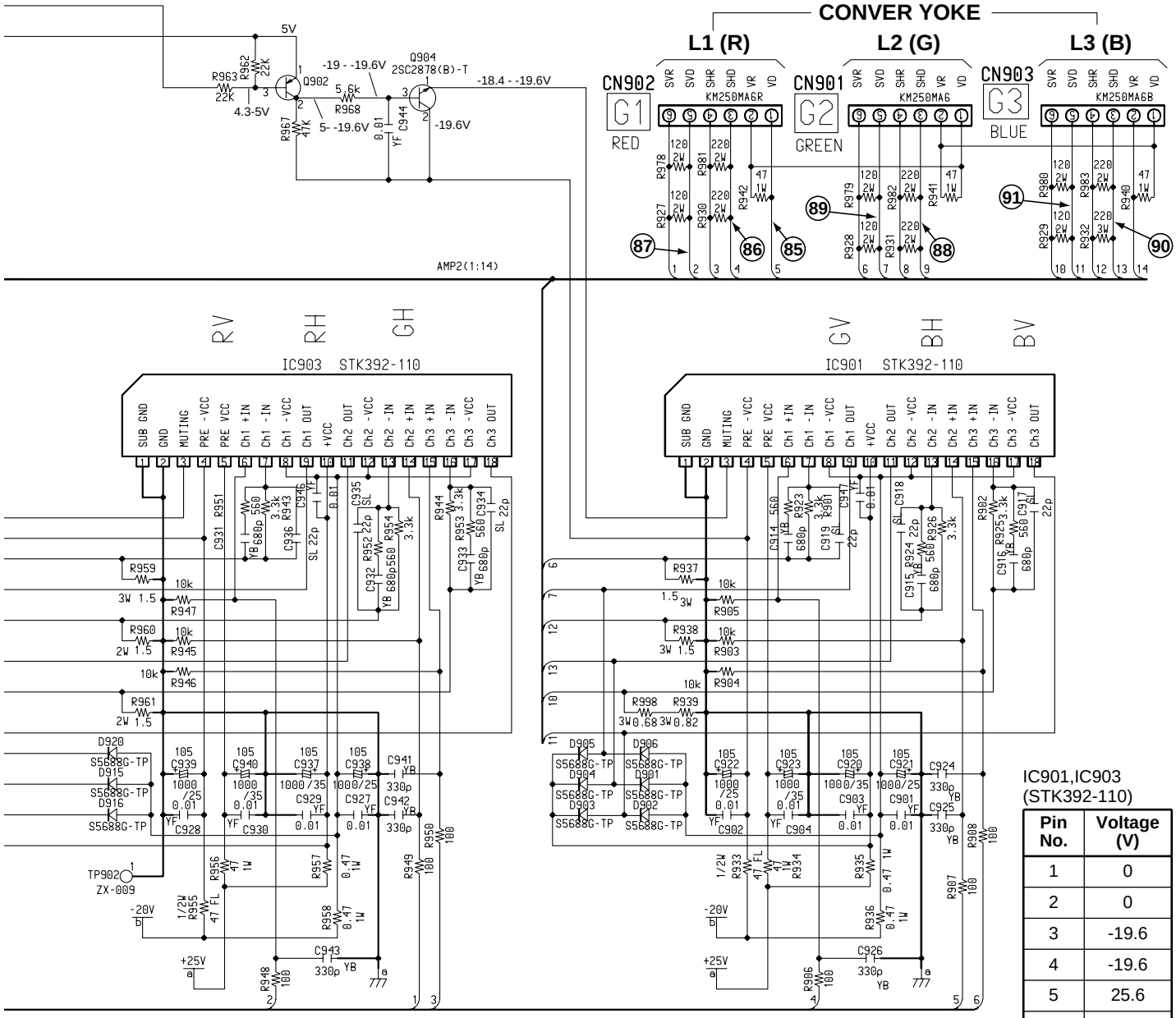
IC1402 (TLC2932IPW)

Pin No.	Voltage (V)
1	4.9
2	0
3	4.8Vpp
4	4.9Vpp
5	4.9Vpp
6	1.8
7	0
8	0
9	0
10	0
11	0
12	1.8
13	3.6
14	4.9

3.29 CONV. AMP ASSY (1/2)

K 1/2
CONV. AMP ASSY
(AWZ6649)
• CONVER AMP BLOCK





Notes

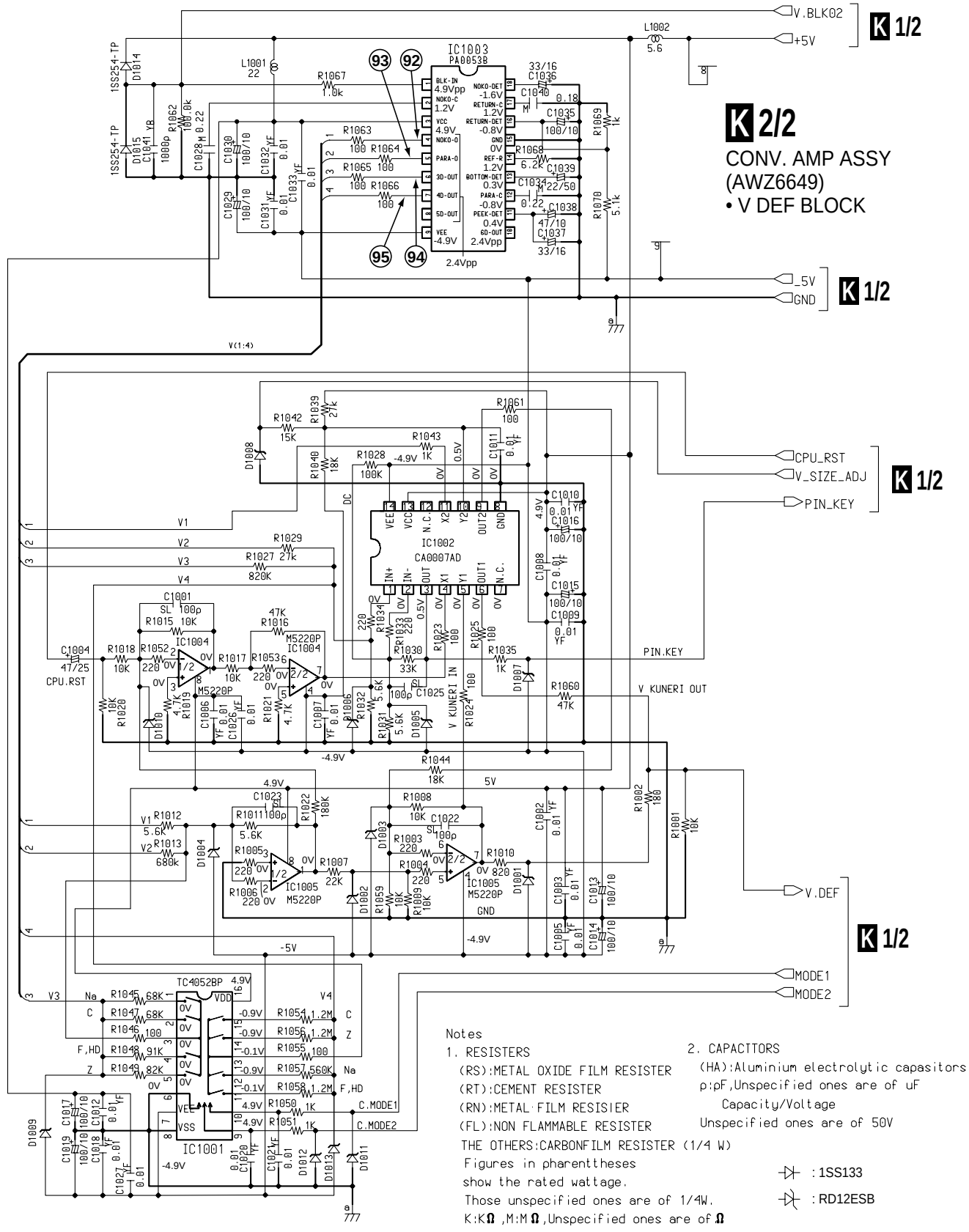
1. RESISTERS
   (RS):METAL OXIDE FILM RESISTER
   (RT):CEMENT RESISTER
   (RN):METAL FILM RESISTER
   (FL):NON FLAMMABLE RESISTER
   THE OTHERS:CARBONFILM RESISTER (1/4 W)
   Figures in pharentheses
   show the rated wattage.
   Those unspecified ones are of 1/4W.
   K:KΩ ,M:MΩ ,Unspecified ones are of Ω

2. CAPACITORS
   (HA):Aluminium electrolytic capasitors
   p:pF,Unspecified ones are of uF
   Capacity/Voltage
   Unspecified ones are of 50V

IC901,IC903
(STK392-110)

Pin No.	Voltage (V)
1	0
2	0
3	-19.6
4	-19.6
5	25.6
6	0
7	0
8	-20.3
9	0
10	26.1
11	0
12	-20.3
13	0
14	0
15	0
16	0
17	-20.3
18	0

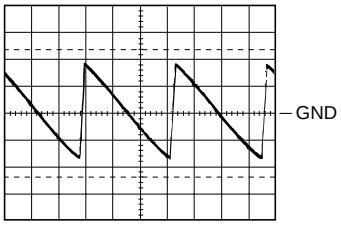
3.30 CONV. AMP ASSY (2/2)



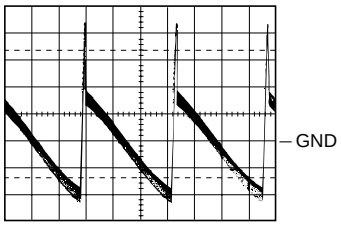
K CONV. AMP ASSY

Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

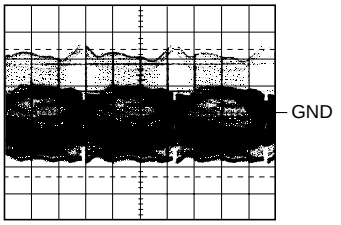
84 **Q908 Base (V. DEF input)**
V: 0.5V/div. H: 5msec/div.



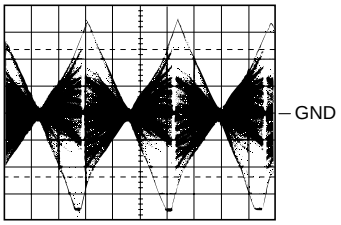
85 **CN902 pin 1 (V. DEF output)**
V: 5V/div. H: 5msec/div.



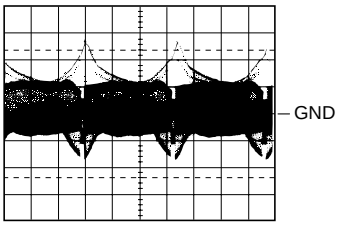
86 **CN902 pin 3 (RH input)**
V: 5V/div. H: 5msec/div.



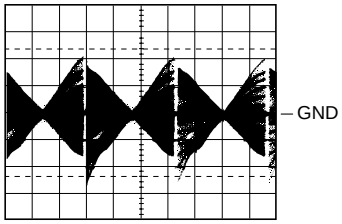
87 **CN902 pin 5 (RV output)**
V: 5V/div. H: 5msec/div.



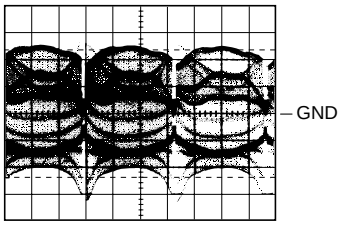
88 **CN901 pin 3 (GH output)**
V: 5V/div. H: 5msec/div.



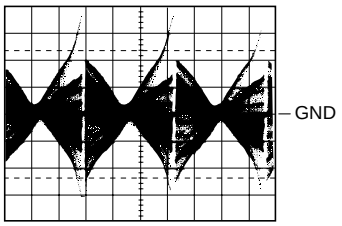
89 **CN901 pin 5 (GV output)**
V: 5V/div. H: 5msec/div.



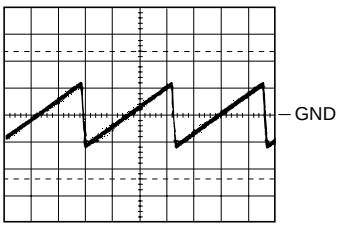
90 **CN903 pin 3 (BH output)**
V: 5V/div. H: 5msec/div.



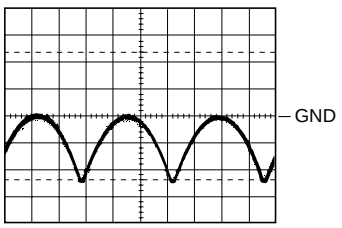
91 **CN903 pin 5 (BV output)**
V: 5V/div. H: 5msec/div.



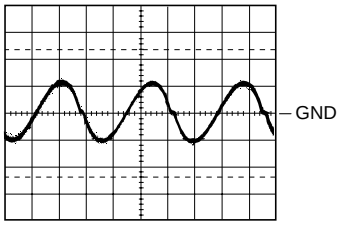
92 **IC1003 pin 4 (V1 output)**
V: 1V/div. H: 5msec/div.



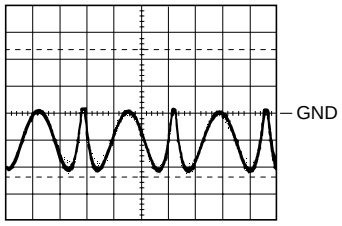
93 **IC1003 pin 5 (V2 output)**
V: 1V/div. H: 5msec/div.



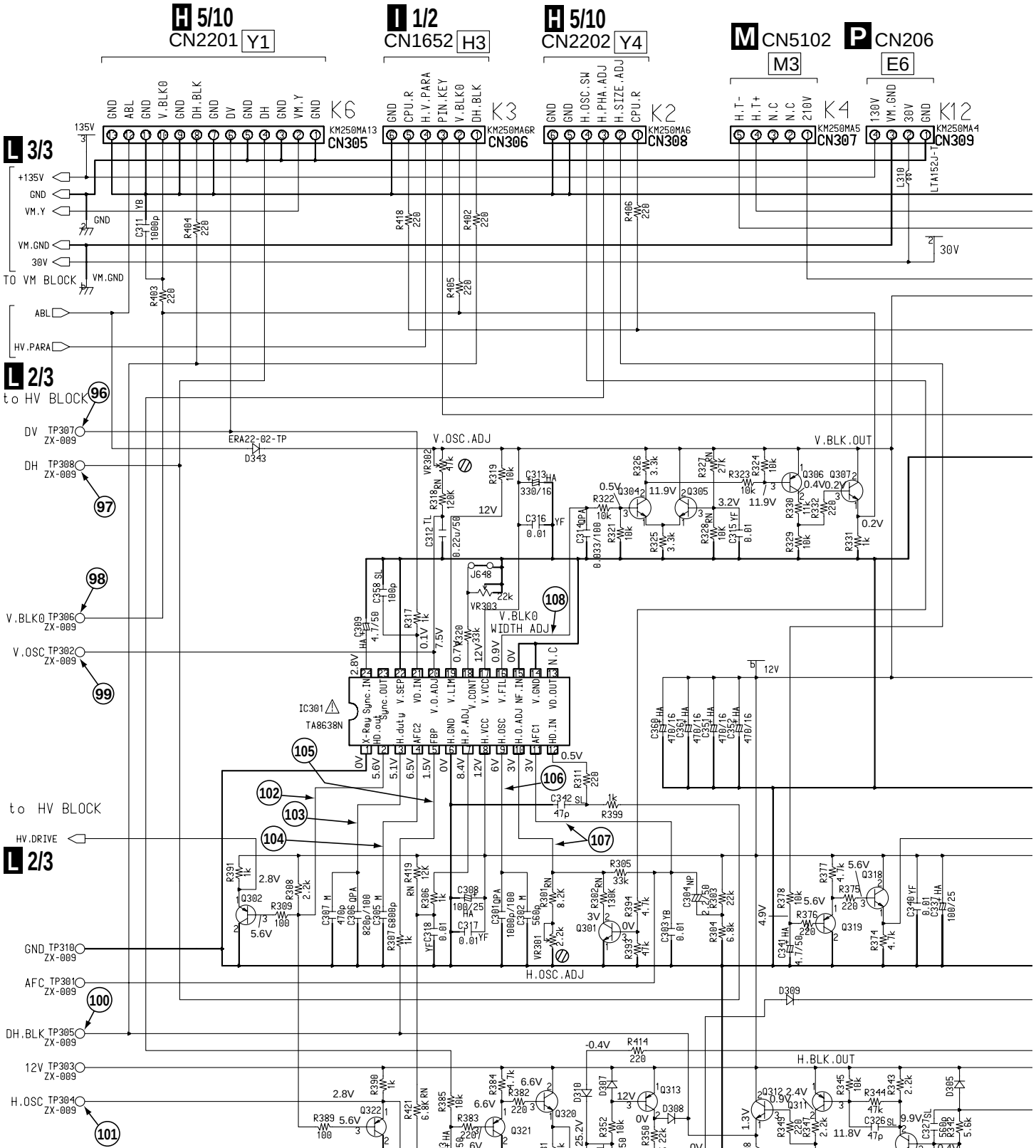
94 **IC1003 pin 6 (V3 output)**
V: 1V/div. H: 5msec/div.

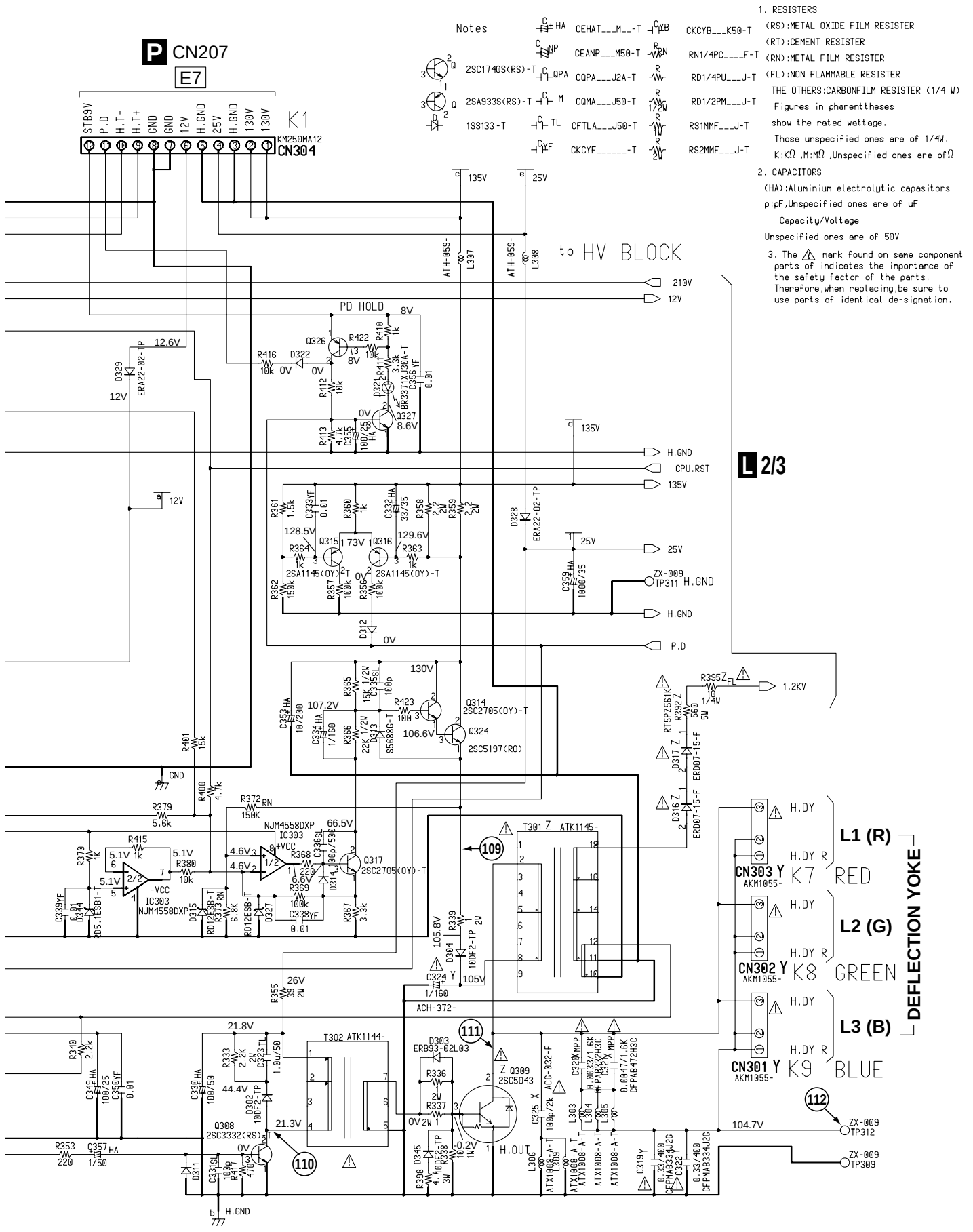


95 **IC1003 pin 7 (V4 output)**
V: 1V/div. H: 5msec/div.

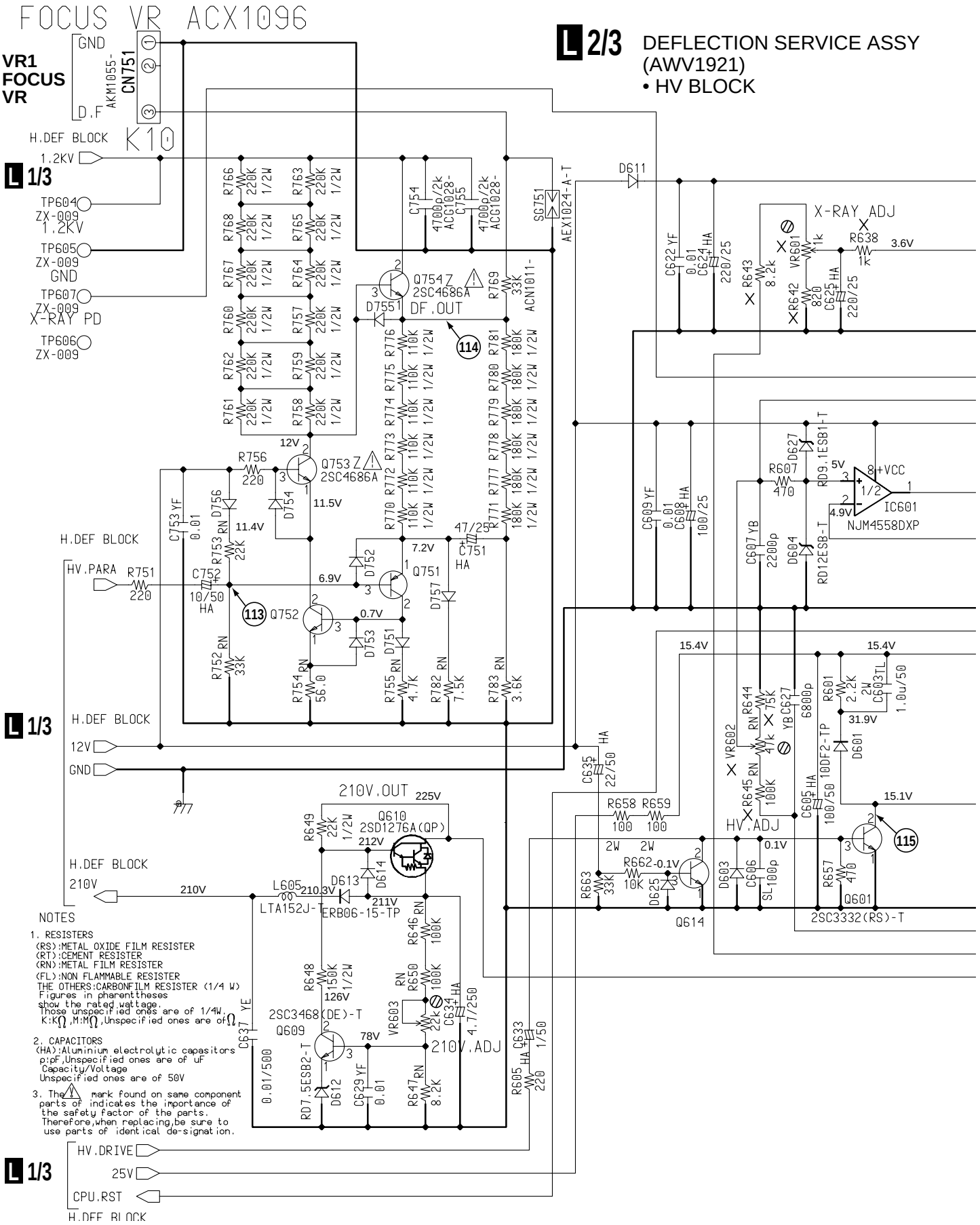


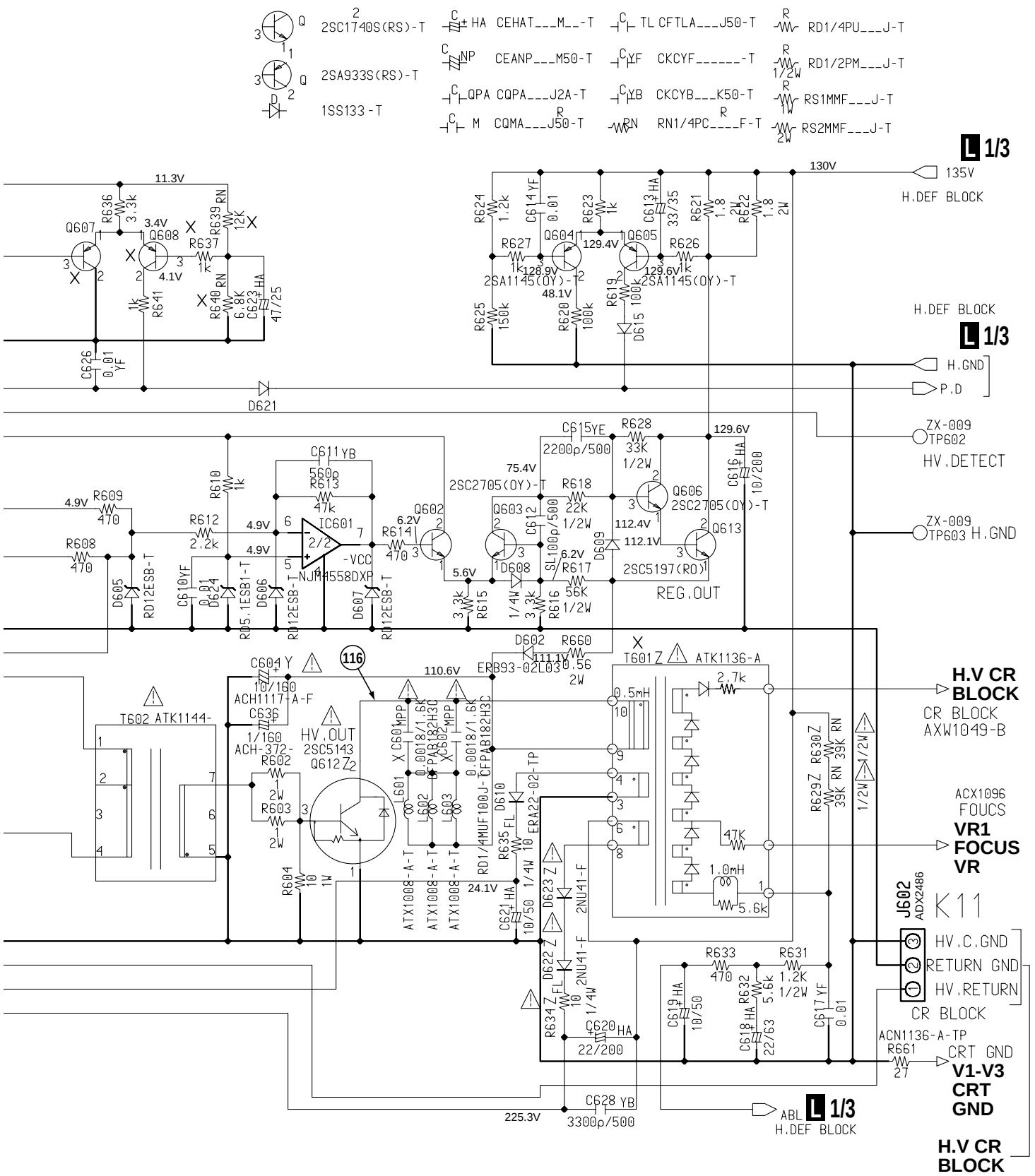
3.31 DEFLECTION SERVICE ASSY (1/3)




P CN207
E7
K1
CN304
KM250MA12
STB9V
P.D
H.T-
H.T+
GND
GND
12V
H.GND
25V
H.GND
130V
130V
Notes
1. RESISTERS
(RS):METAL OXIDE FILM RESISTER
(RT):CEMENT RESISTER
(RN):METAL FILM RESISTER
(FL):NON FLAMMABLE RESISTER
THE OTHERS:CARBONFILM RESISTER (1/4 W)
Figures in pharentheses show the rated wattage.
Those unspecified ones are of 1/4W.
K:KΩ ,M:MΩ ,Unspecified ones are ofΩ
2. CAPACITORS
(HA):Aluminium electrolytic capasitors
p:pF,Unspecified ones are of uF
Capacity/Voltage
Unspecified ones are of 50V
3. The ⚠ mark found on same component parts of indicates the importance of the safety factor of the parts. Therefore,when replacing,be sure to use parts of identical de-signation.
to HV BLOCK
210V
12V
H.GND
CPU.RST
135V
25V
ZX-009 TP311 H.GND
P.D
1.2KV
L 2/3
L1 (R)
L2 (G)
L3 (B)
DEFLECTION YOKE
CN303 Y K7 RED
CN302 Y K8 GREEN
CN301 Y K9 BLUE
H.DY
H.DY R
ZX-009 TP312
ZX-009 TP309
PD HOLD
IC303 NJM4558DXP
T301 Z ATK1145-
T302 ATK1144-
ACH-372-
Q308 2SC3332(RS)
Q309 2SC5043
Q314 2SC2705(OY)-T
Q317 2SC2705(OY)-T
Q324 2SC5197(RO)
Q326
Q327
Q315 2SA1145(OY)
Q316 2SA1145(OY)-T
D303 ERB93-02L03
109
110
111
112

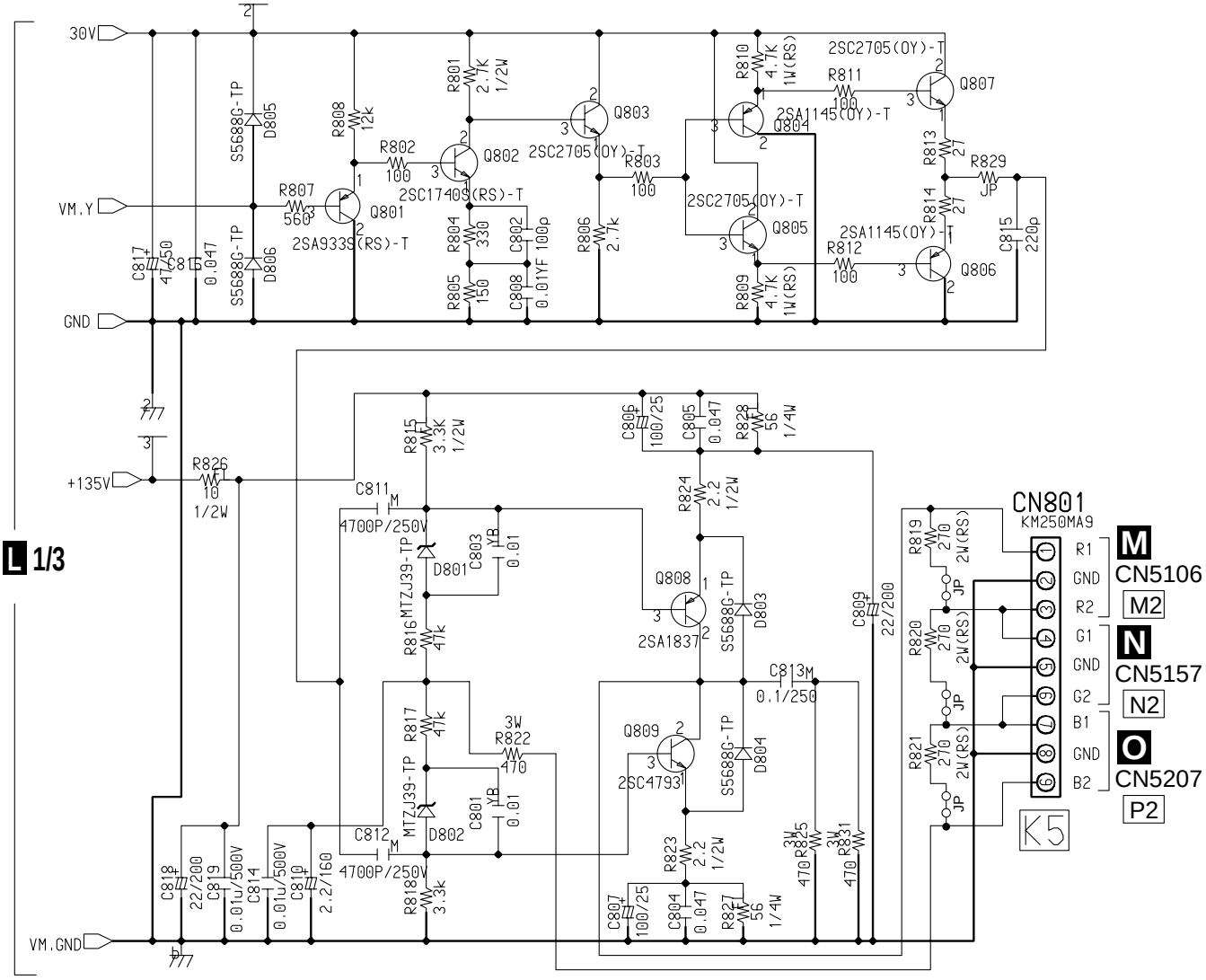
3.32 DEFLECTION SERVICE ASSY (2/3)




Q 2SC1740S(RS)-T
Q 2SA933S(RS)-T
D 1SS133-T
C HA CEHAT___M__-T
C NP CEANP___M50-T
C QPA CQPA___J2A-T
C M CQMA___J50-T
C TL CFTLA___J50-T
C YF CKCYF_____-T
C YB CKCYB___K50-T
R RN RN1/4PC____F-T
R RD1/4PU___J-T
R RD1/2PM___J-T
R RS1MMF___J-T
R RS2MMF___J-T
L 1/3
135V
H.DEF BLOCK
130V
H.DEF BLOCK
L 1/3
H.GND
P.D
ZX-009 TP602
HV.DETECT
ZX-009 TP603 H.GND
REG.OUT
H.V CR BLOCK
CR BLOCK AXW1049-B
ACX1096 FOUCS
VR1 FOCUS VR
J602 ADX2486 K11
HV.C.GND
RETURN GND
HV.RETURN
CR BLOCK
ACN1136-A-TP
CRT GND
V1-V3 CRT GND
H.V CR BLOCK
ABL
L 1/3
H.DEF BLOCK
T602 ATK1144-
HV.OUT 2SC5143
T601Z ATK1136-A
IC601 NJM4558DXP
ACH1117-A-F
ACH-372-
ERB93-02L03
ERA22-02-TP
2SC2705(OY)-T
2SA1145(OY)-T
2SC5197(RO)
11.3V
3.4V
4.1V
129.4V
128.9V
129.6V
48.1V
75.4V
129.6V
112.4V
112.1V
6.2V
5.6V
4.9V
6.2V
111.1V
110.6V
24.1V
225.3V

3.33 DEFLECTION SERVICE ASSY (3/3)

L 3/3 DEFLECTION SERVICE ASSY (AWV1921)
• VM BLOCK



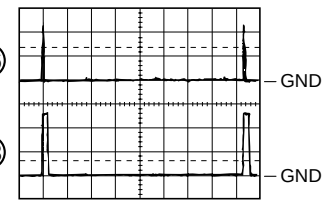
L

DEFLECTION SERVICE ASSY

Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

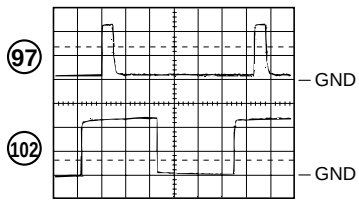
(96) TP307 (DV)
V: 2V/div. H: 2msec/div.

(98) TP306 (V. BLK)
V: 2V/div. H: 2msec/div.

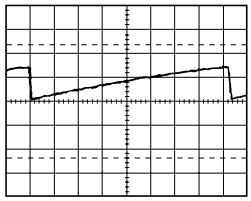


(97) TP308 (DH)
V: 2V/div. H: 5µsec/div.

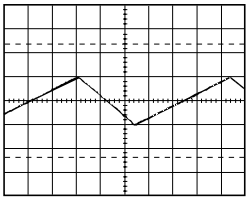
(102) IC301 pin 2
V: 5V/div. H: 5µsec/div.



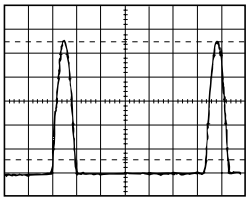
99 **IC301 pin 20**
V: 2V/div. H: 2msec/div.



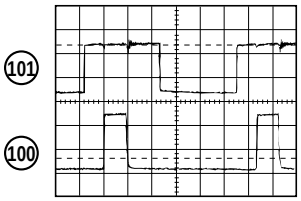
106 **IC301 pin 9**
V: 2V/div. H: 5µsec/div.



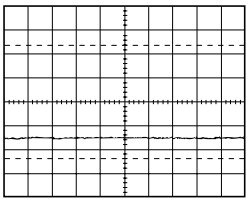
111 **Q309 Collector**
V: 200V/div. H: 5µsec/div.



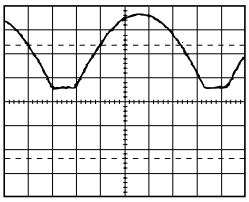
100 **TP305 (DH. BLK)**
V: 2V/div. H: 5µsec/div.
101 **TP304 (H. OSC)**
V: 2V/div. H: 5µsec/div.



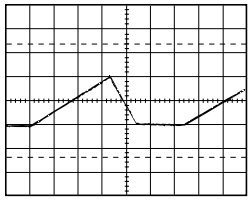
107 **IC301 pin 10, 11**
V: 2V/div. H: 5µsec/div.



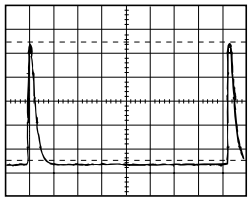
112 **TP312**
V: 20V/div. H: 5µsec/div.



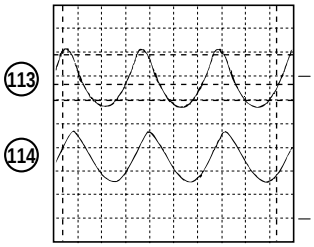
103 **IC301 pin 3**
V: 2V/div. H: 5µsec/div.



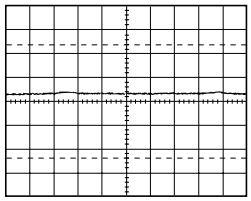
108 **IC301 pin 16**
V: 2V/div. H: 2msec/div.



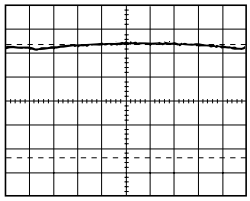
113 **Q751 Base**
V: 2V/div. H: 10µsec/div.
114 **Q754 Emitter**
V: 200V/div. H: 10µsec/div.



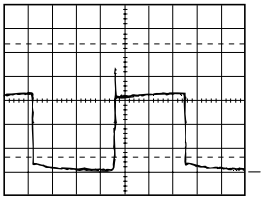
104 **IC301 pin 4**
V: 2V/div. H: 5µsec/div.



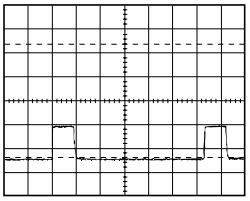
109 **Q324 Emitter**
V: 20V/div. H: 2msec/div.



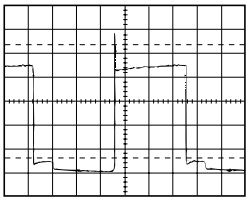
115 **Q601 Collector**
V: 10V/div. H: 5µsec/div.



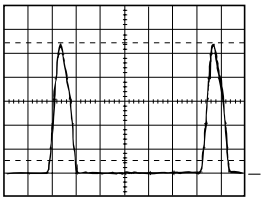
105 **IC301 pin 5**
V: 2V/div. H: 5µsec/div.



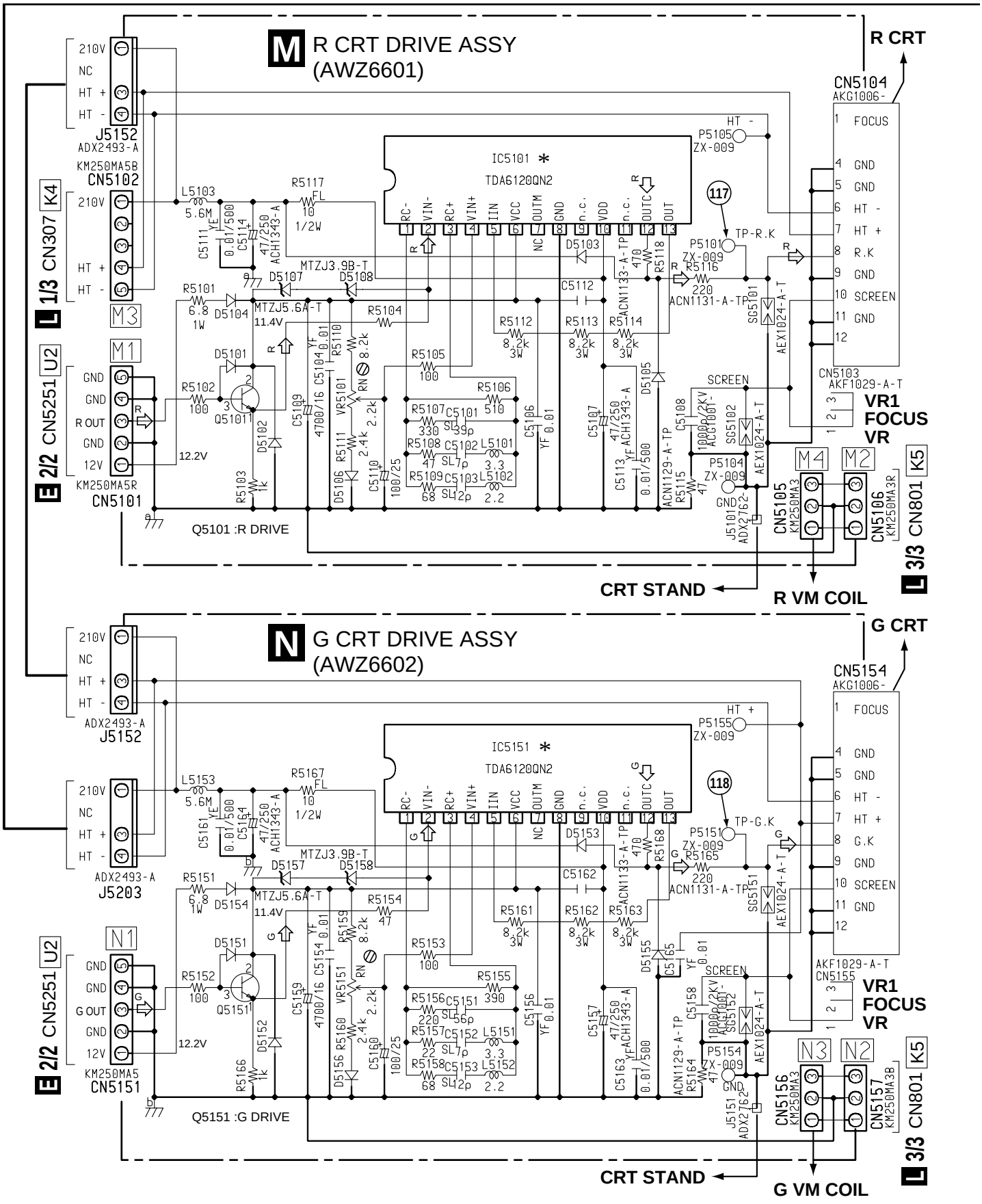
110 **Q308 Collector**
V: 10V/div. H: 5µsec/div.

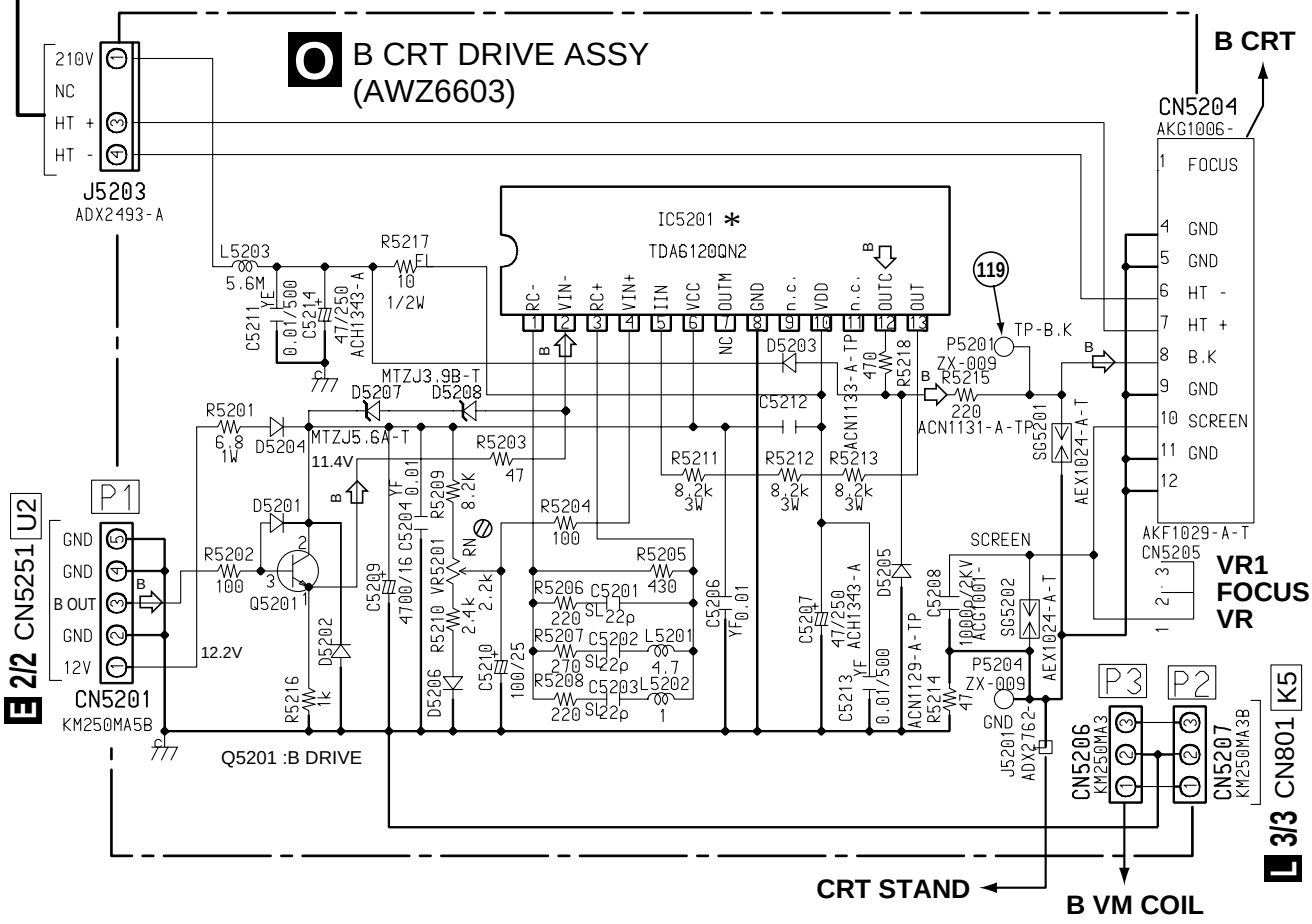


116 **Q612 Collector**
V: 200V/div. H: 5µsec/div.



3.34 R, G and B CRT DRIVE ASSYS





R, G or B ⇨ : R, G or B SIGNAL ROUTE

* Resistor indicated in ohm,1/4W±5% tolerance unless otherwise noted.k:k ohm,M:M ohm

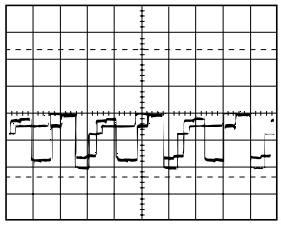
* Capacitor indicated in Capacity(uF)/Voltage(V) unless otherwise noted.p:pF indication without voltage is 50V except Electrolytic capacitor.

* Diode S5688G-TP

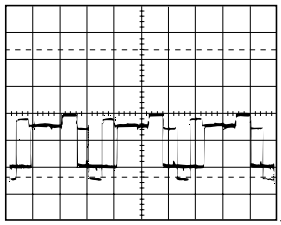
* Transister 2SC1740S(RS)-T

INPUT Signal
Video signal: EIA full color-bar
Picture quality: Standard
Range: DC range

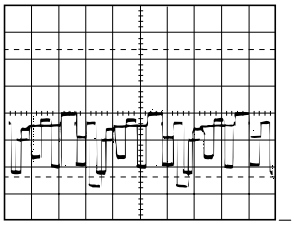
(117) **TP-R.K**
V: 50V/div. H: 10µsec/div.



(118) **TP-G.K**
V: 50V/div. H: 10µsec/div.



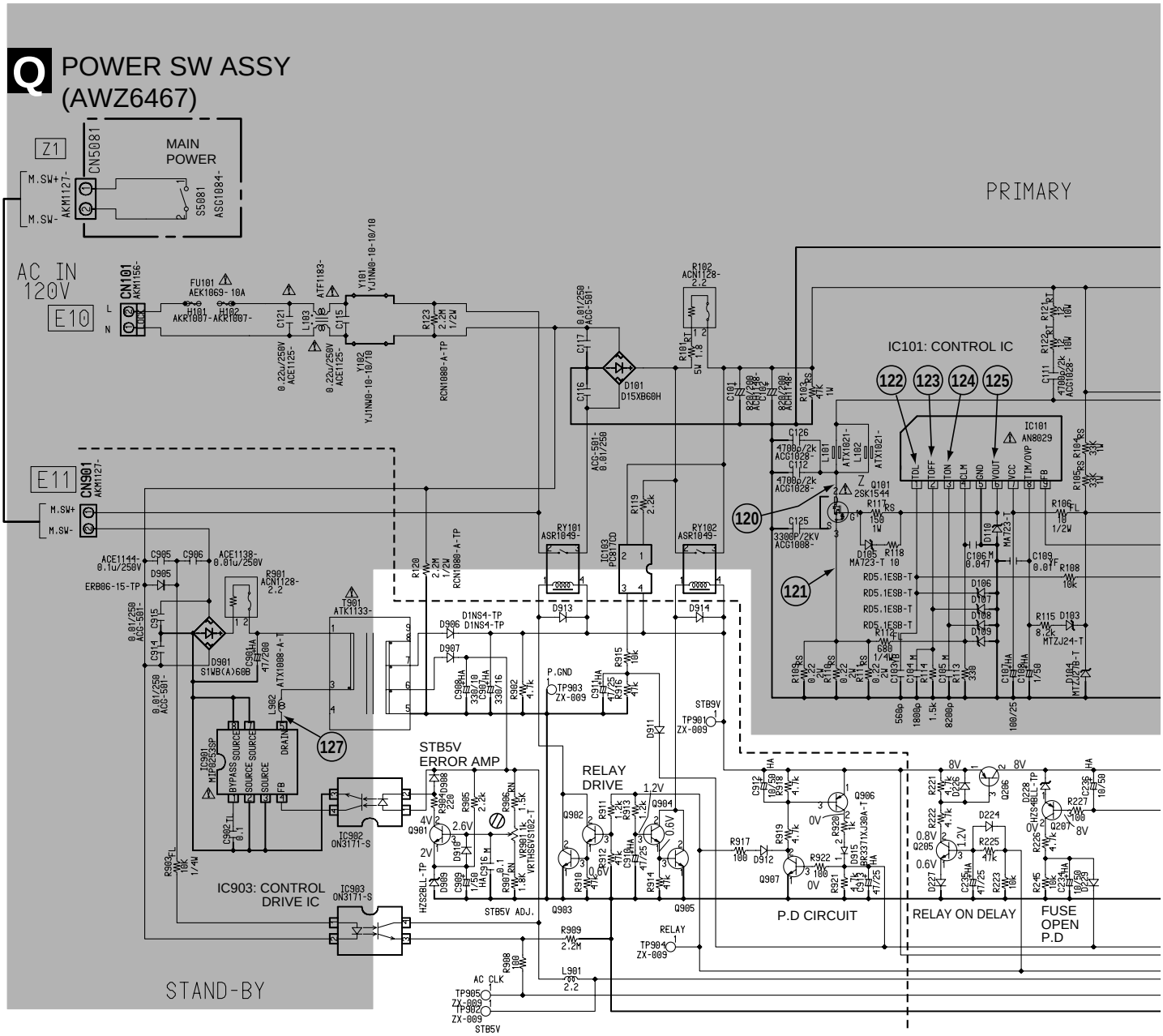
(119) **TP-B.K**
V: 50V/div. H: 10µsec/div.



3.35 POWER SUPPLY ASSY

P POWER SUPPLY ASSY
(AWV1912)

Q POWER SW ASSY
(AWZ6467)



: CHARGED SECTION

1.RESISTORS
(RS);METAL OXIDE FILM RESISTOR
(RT);CEMENT RESISTOR
(RN);METAL FILM RESISTOR
(FL);NONFLAMMABLE RESISTOR
THE OTHERS;CARBON FILM RESISTOR

Those unspecified ones are of 1/4W
k;kΩ ,M;MΩ ,Unspecified ones are ofΩ

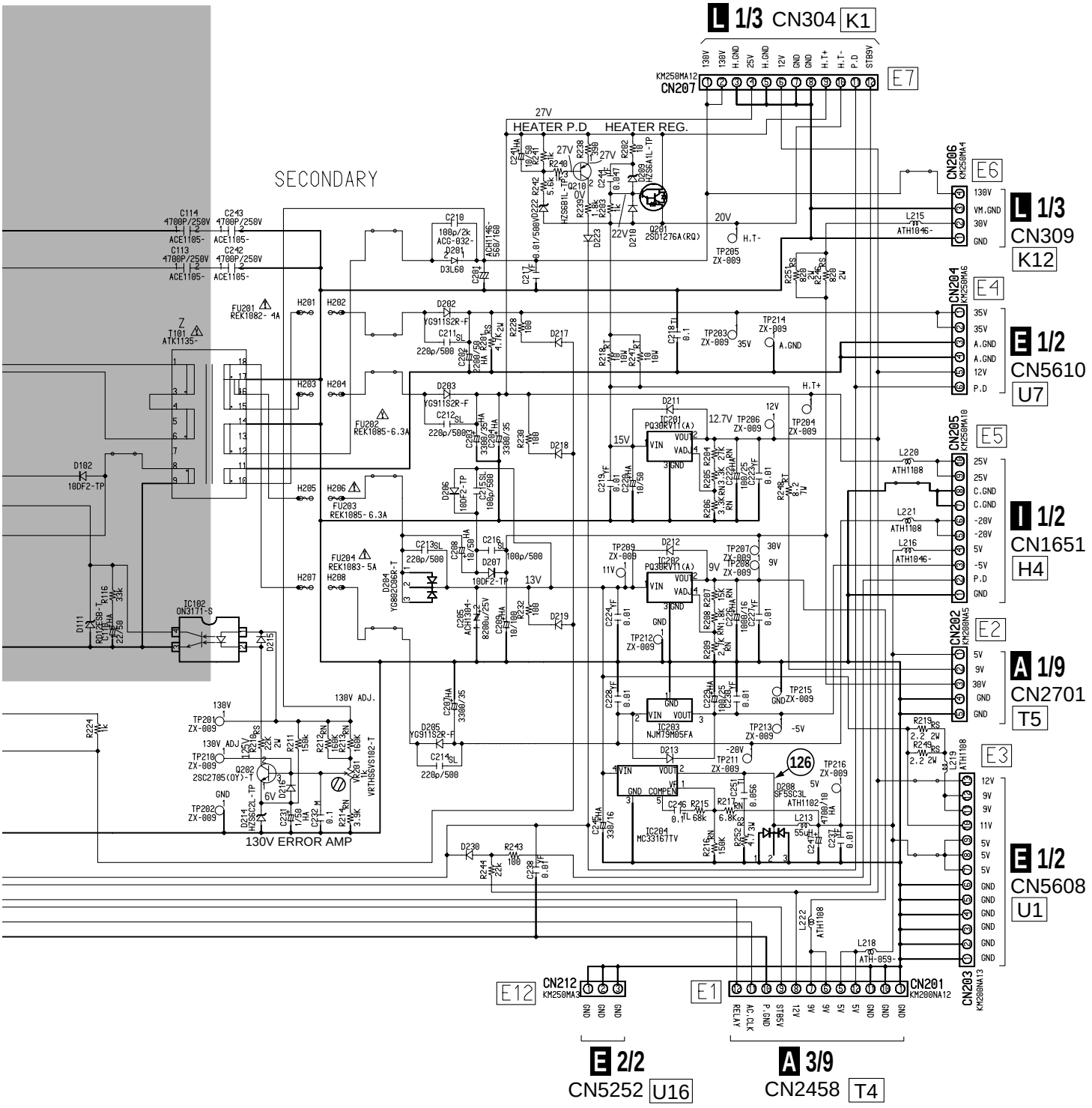
2.CAPACITORS
(YF);CERAMIC CAPACITOR
(SL);CERAMIC CAPACITOR
(HA);HIGH TEMP CHEMICAL CAPACITOR
(YB);CERAMIC CAPACITOR
(M);MILAR CAPACITOR
p;pF,Unspecified ones are of μ F
Capacity / Voltage (;A,C,no mark;D,C)
Unspecified ones are of 50V

3.The ⚠ mark found on same component parts indicates the importance of the safety factor of the parts.
Therefore,when replacing,be sure to use parts of identical de-signation.

2SA933S(RS)-T
2SC1740S(RS)-T
1SS133-T

• NOTE FOR FUSE REPLACEMENT

CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS ONLY.

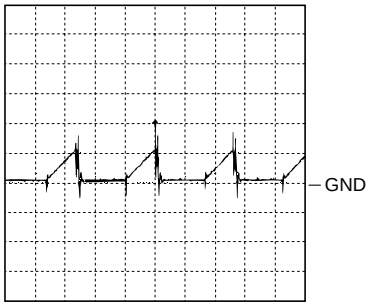


P POWER SUPPLY ASSY

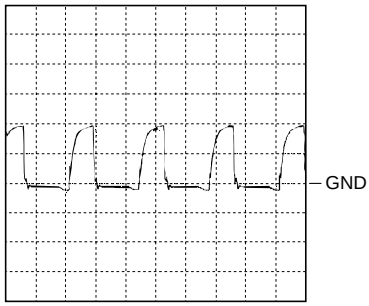
Input signal
Video signal : EIA full color-bar
Picture quality : Standard
Range :DC range (Unless otherwise noted)

(120) **Q101 Drain**
V: 100V/div. H: 10µsec/div.

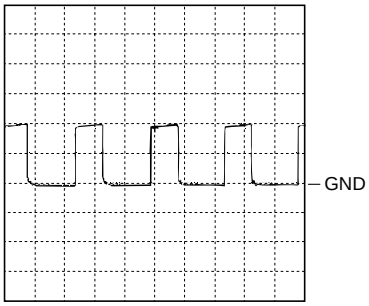
(124) **IC101 pin 3**
V: 500mV/div. H: 10µsec/div.



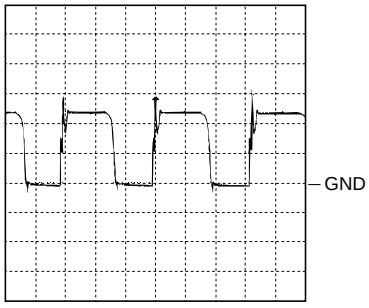
(121) **Q101 Gate**
V: 10V/div. H: 10µsec/div.



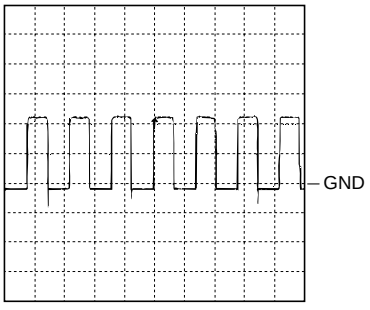
(125) **IC101 pin 6**
V: 10V/div. H: 10µsec/div.



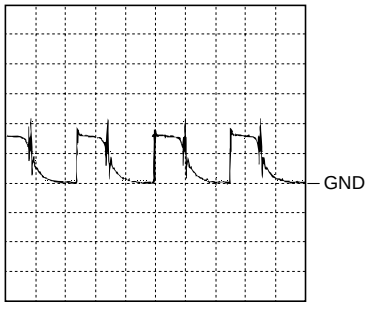
(122) **IC101 pin 1**
V: 1V/div. H: 10µsec/div.



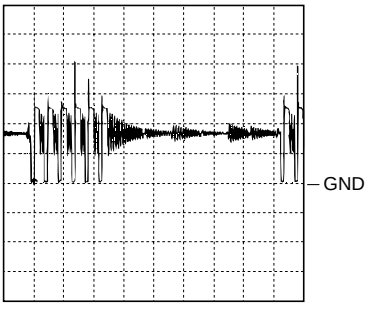
(126) **IC204 pin 2**
V: 5V/div. H: 10µsec/div.



(123) **IC101 pin 2**
V: 500mV/div. H: 10µsec/div.

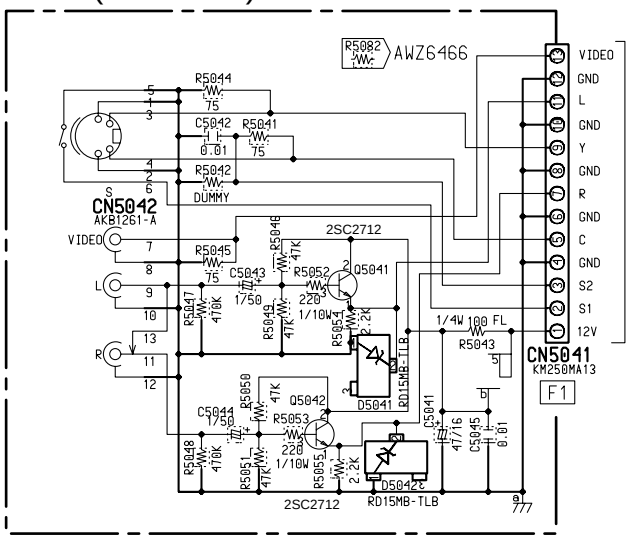


(127) **IC901 pin 5**
V: 100V/div. H: 50µsec/div.



3.36 FRONT INPUT, FRONT CONTROL and LED DPO ASSYS

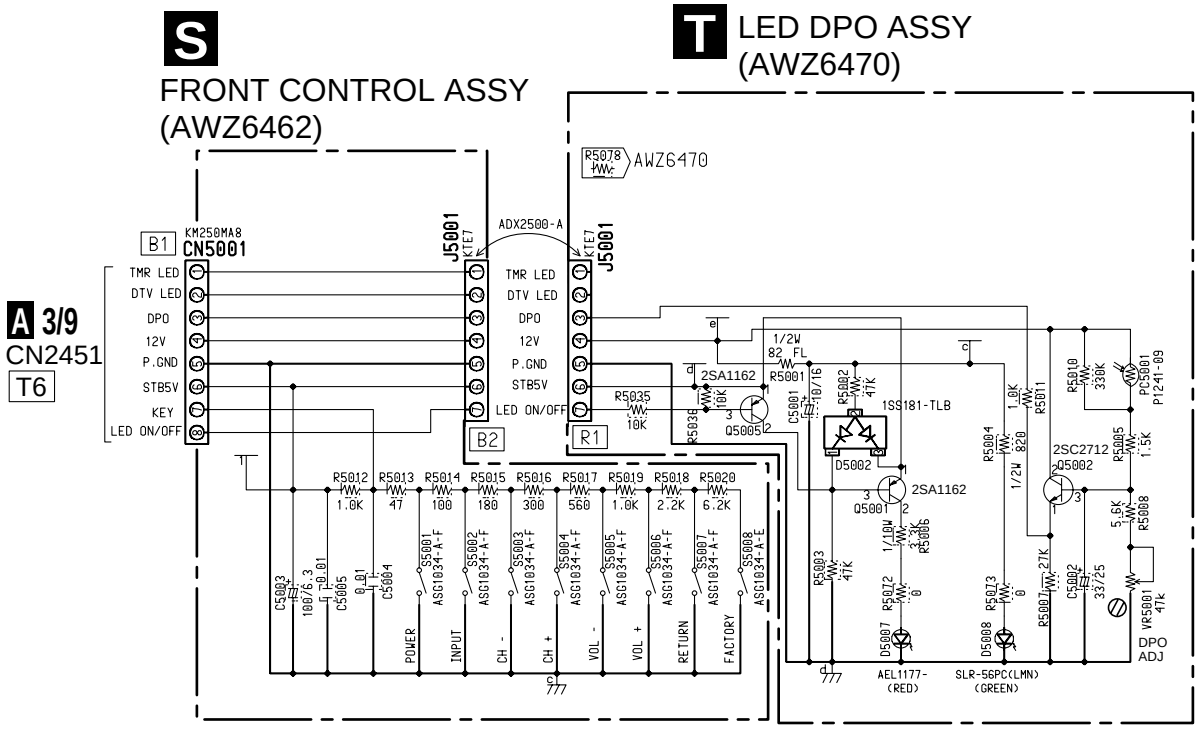
R FRONT INPUT ASSY
(AWZ6466)



Notes
1.RESISTORS
Indicated in Ω
tolerance unless otherwise noted k Ω
2.CAPASITORS
Indicated in capacity(uF)/Voltage unless otherwise noted p pF
Indication without voltage is 50V except electrolytic capacitor.

S
FRONT CONTROL ASSY
(AWZ6462)

T LED DPO ASSY
(AWZ6470)

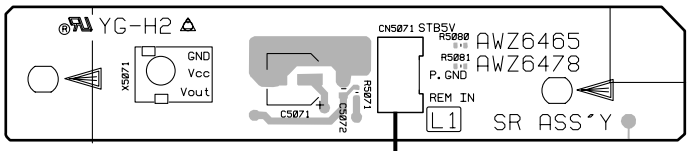


FRONT CONTROL ASSY
S5001 : STANDBY/ON
S5002 : INPUT SELECTOR
S5003 : CHANNEL –
S5004 : CHANNEL +
S5005 : VOLUME –
S5006 : VOLUME +
S5007 : RETURN
S5008 : FACTORY ADJ

4. PCB CONNECTION DIAGRAM

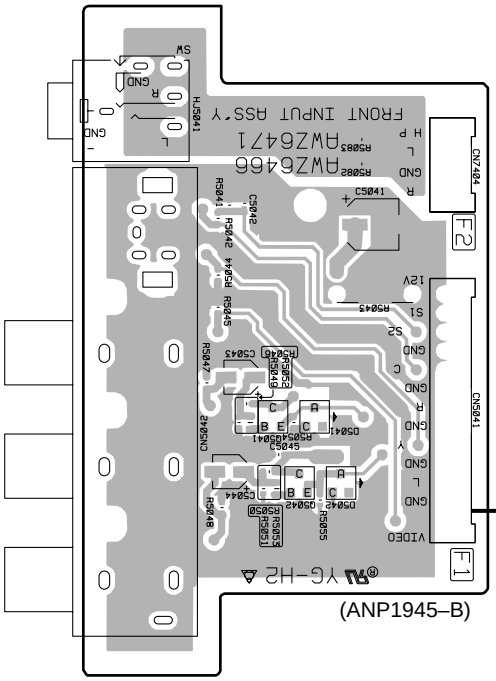
4.1 AV I/O, SR, BNC and FRONT INPUT ASSYS

D SR ASSY



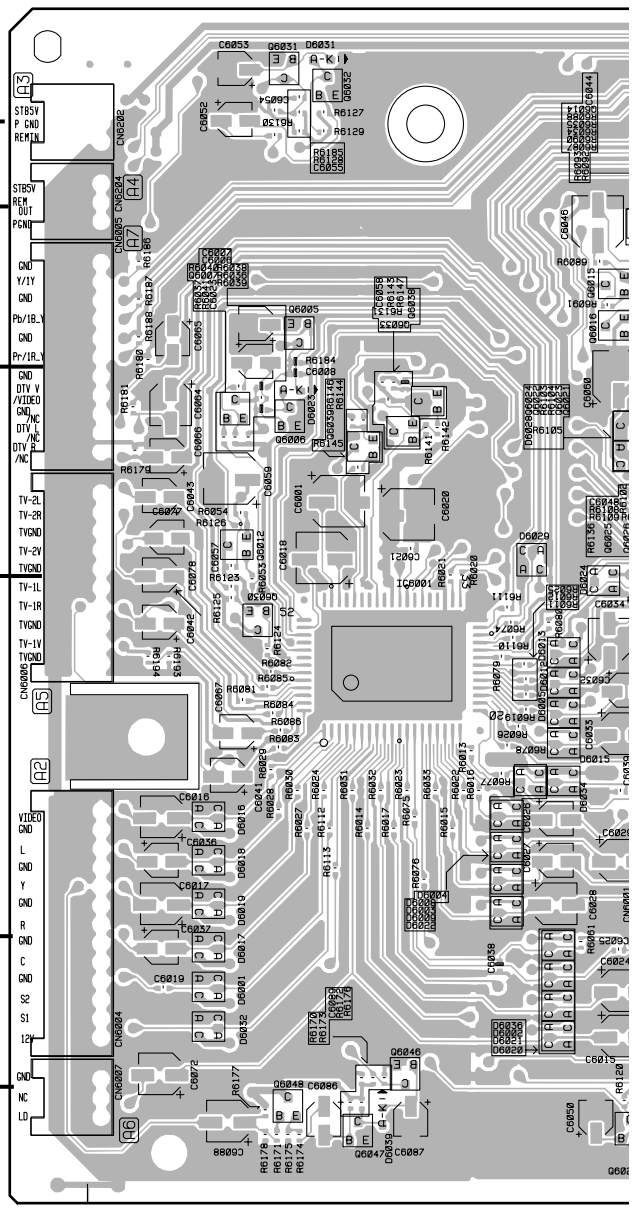
(ANP1945–B)

R FRONT INPUT ASSY



(ANP1945–B)

B AV I/O ASSY



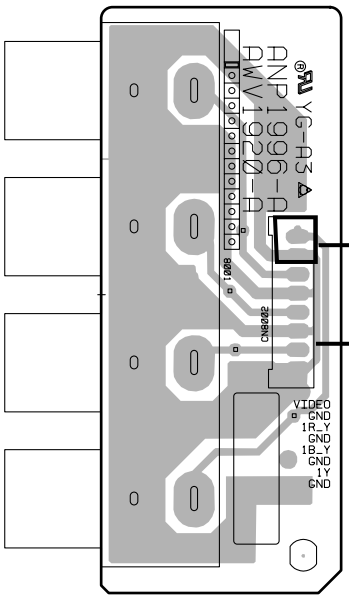
A J2451 T12

A J2703 T2

Q5041

Q5042

C BNC ASSY



(ANP1996-A)

SIDE A

Q6031 Q6032
Q6005
Q6014–Q6016
Q6007 Q6006 Q6039 Q6033 Q6038 Q6024
Q6012 IC6001 Q602
Q6030 Q6046
Q6048 Q6047 Q6027

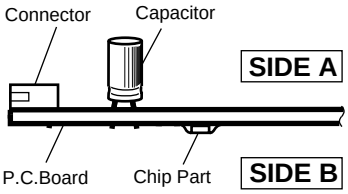
NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

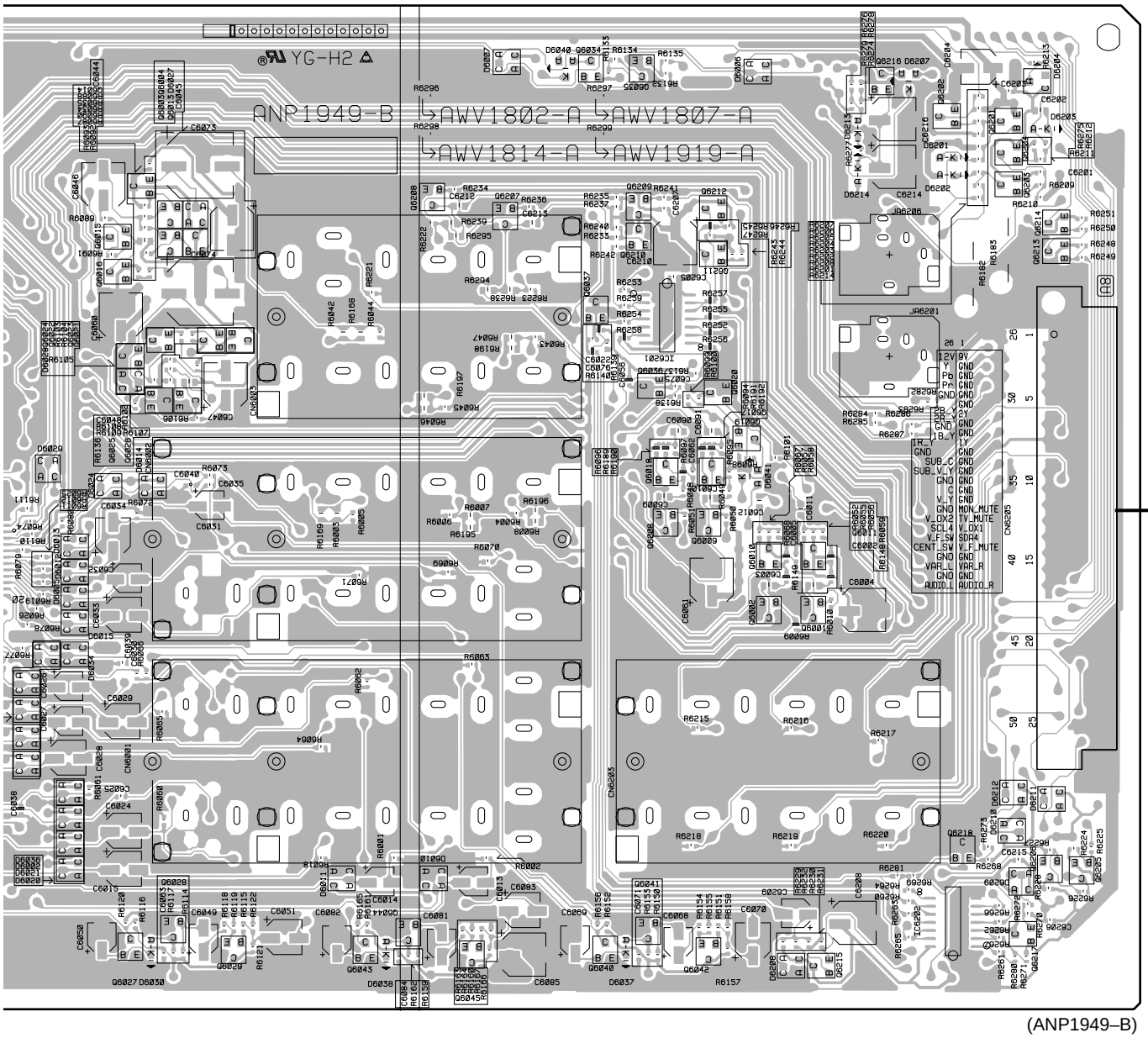
Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



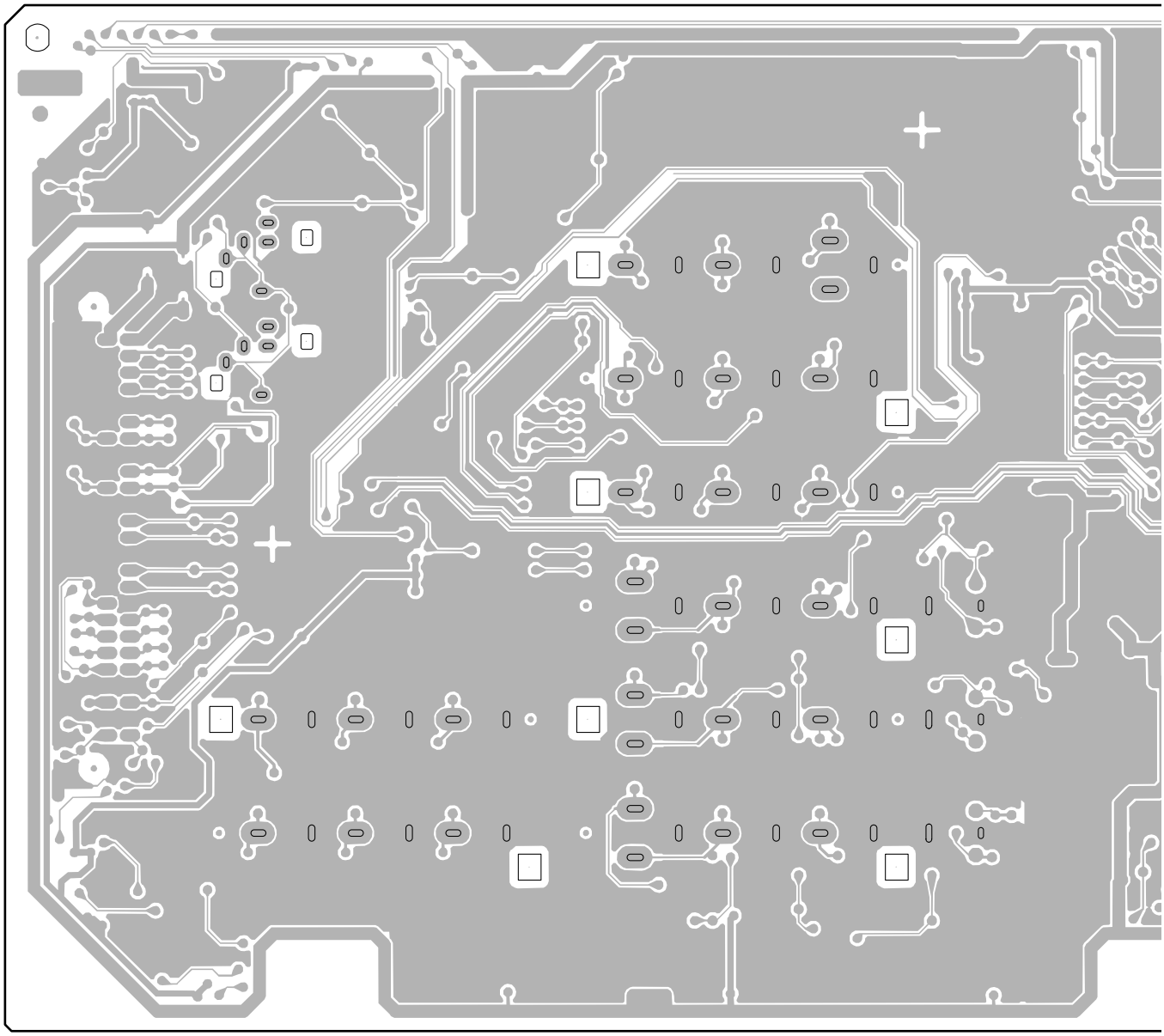
E
CN5601
U9



(ANP1949–B)

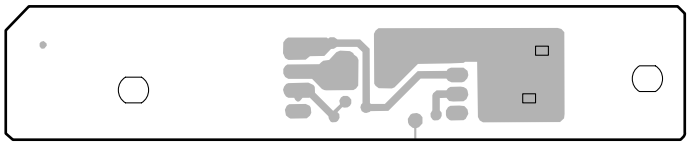
Q6014–Q6016 Q6004 Q6003 Q6013 Q6208 Q6207 Q6235 Q6209–Q6212 Q6216 Q6201–Q6204 Q6214 Q6213
Q6024 Q6022 Q6023 Q6021 Q6037 Q6036 Q6020 Q6002 Q6001
Q6028 Q6025 Q6026 Q6008 Q6018 Q6017 Q6009 Q6010 Q6011
Q6218 Q6205
Q6027 Q6028 Q6029 Q6043 Q6044 Q6045 Q6040 Q6041 Q6042 Q6215 IC6202 Q6217

B AV I/O ASSY

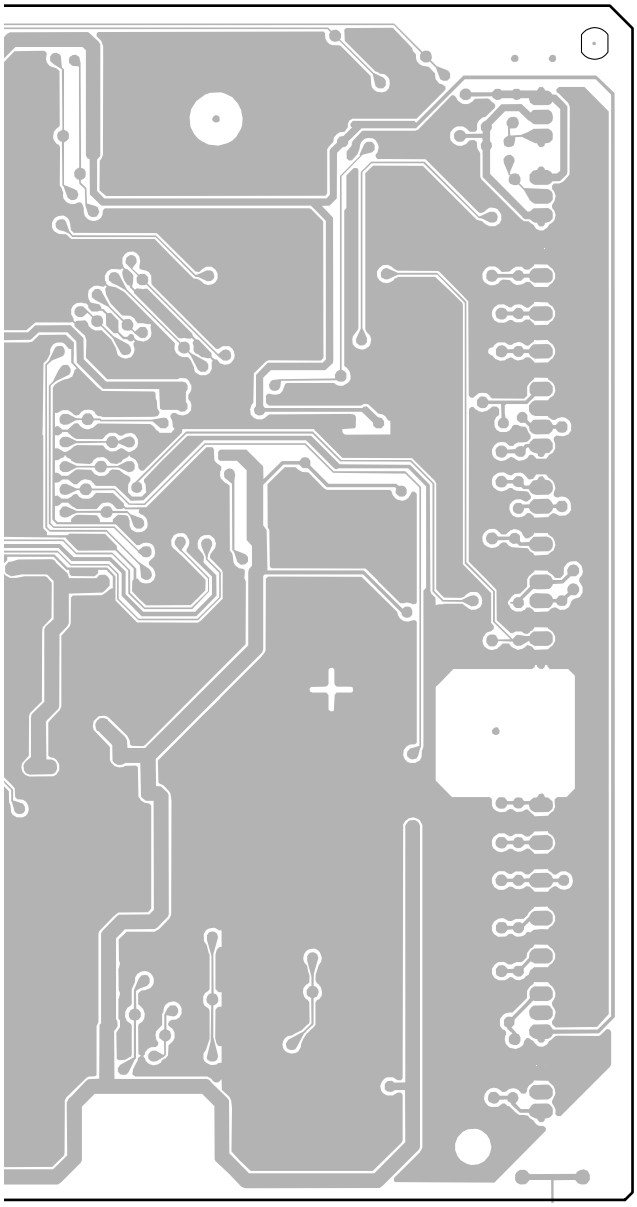


SIDE B

D SR ASSY

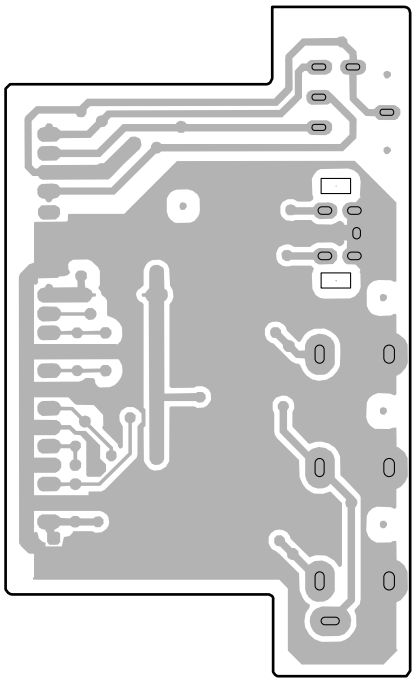


(ANP1945–B)



(ANP1949–B)

R FRONT INPUT ASSY

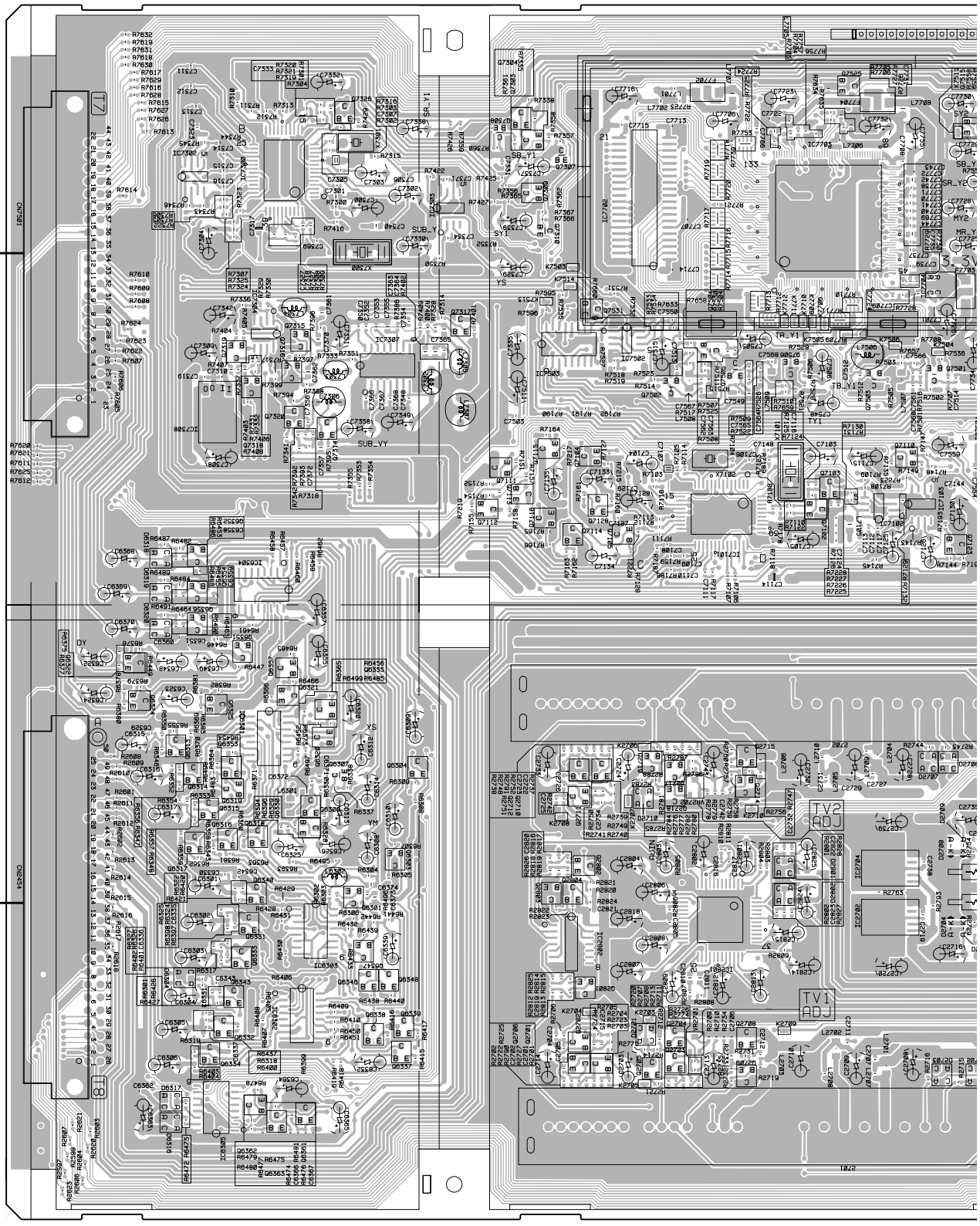


(ANP1945–B)

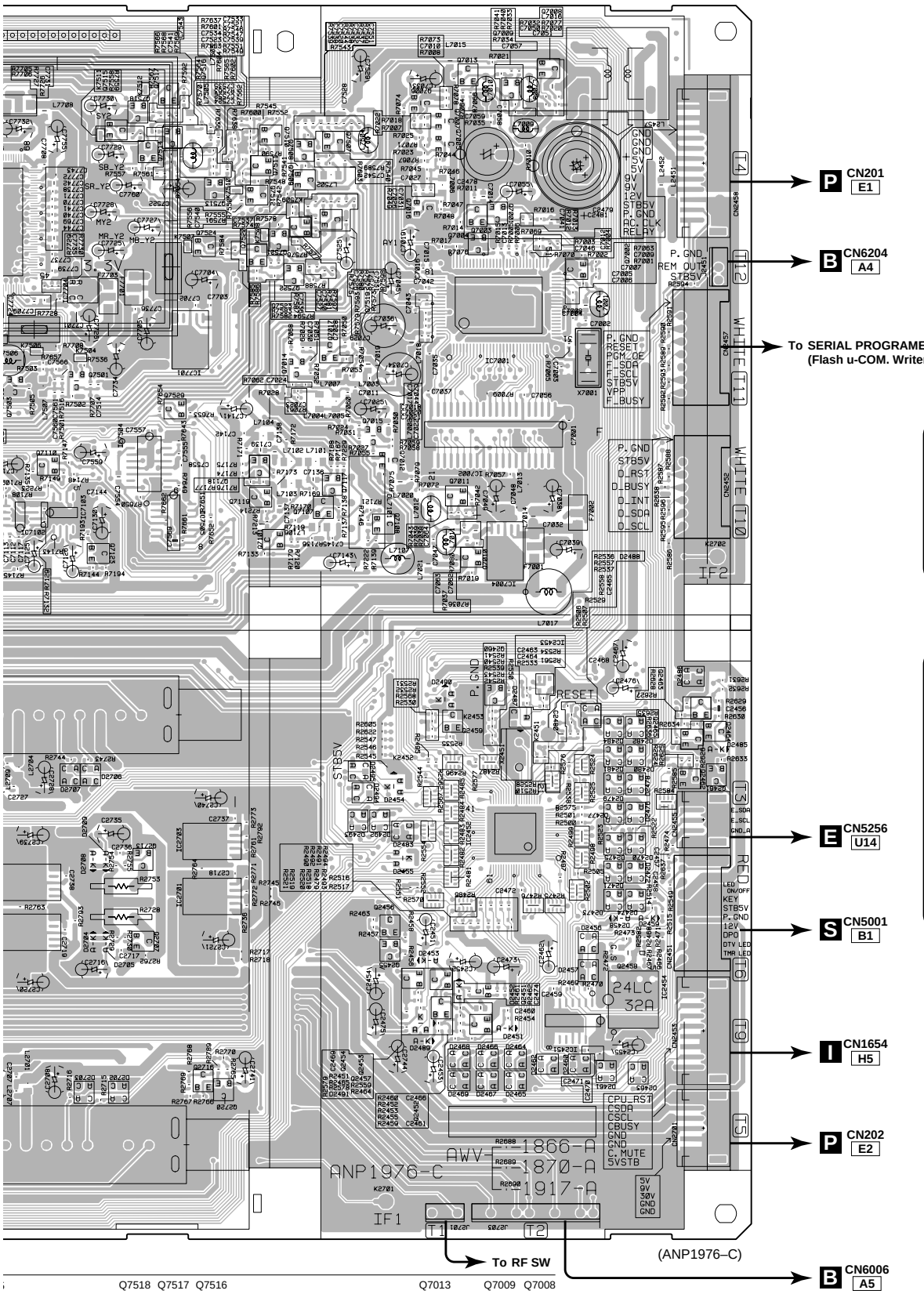
4.2 SIGNAL ASSY

A-a

A SIGNAL ASSY

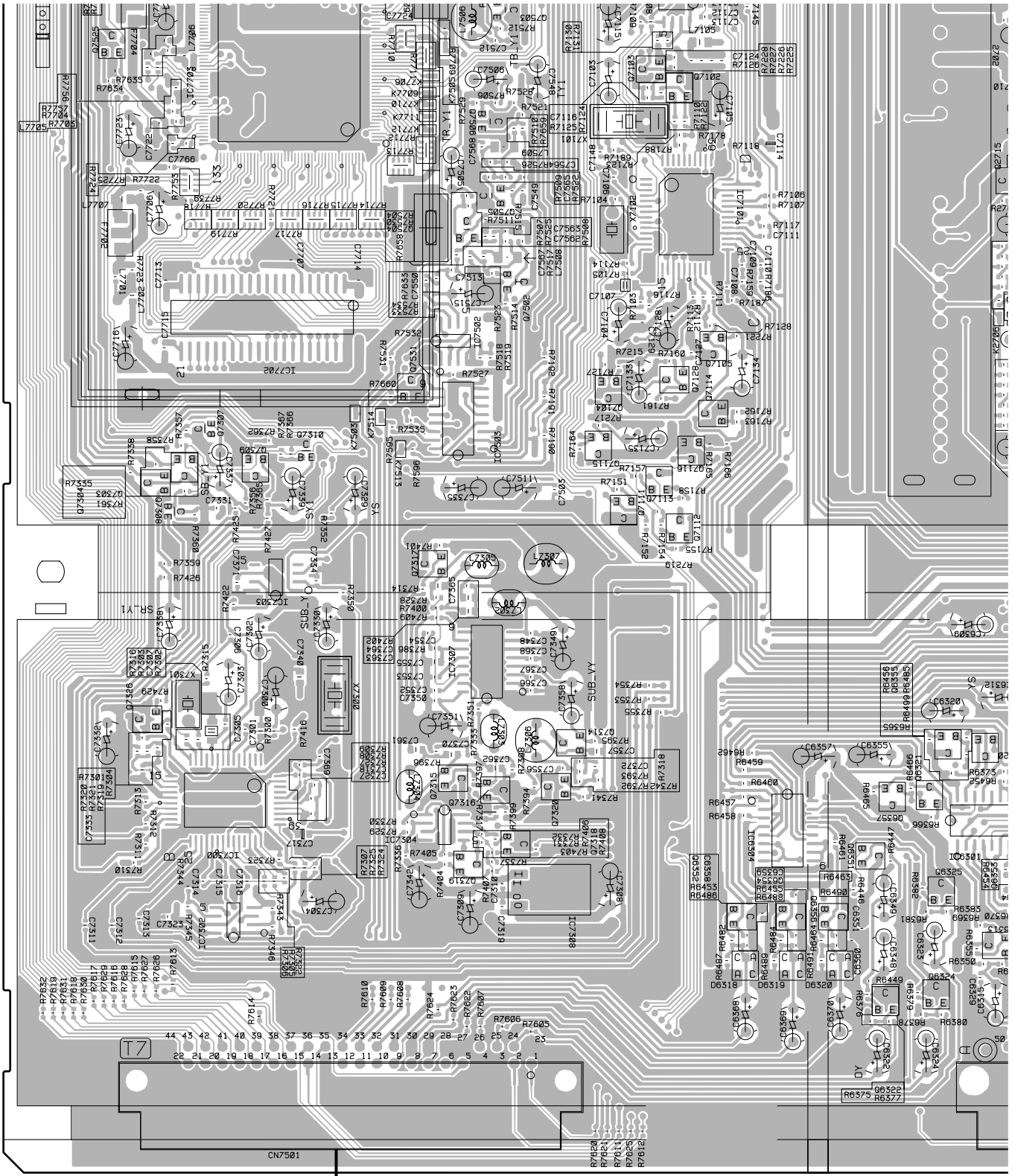


A-b


P CN201 E1
B CN6204 A4
To SERIAL PROGRAMER (Flash u-COM. Writer)
E CN5256 U14
S CN5001 B1
I CN1654 H5
P CN202 E2
B CN6006 A5
To RF SW
(ANP1976–C)
Large size PCB diagram
A-a
A-b
Guide page
Detailed page

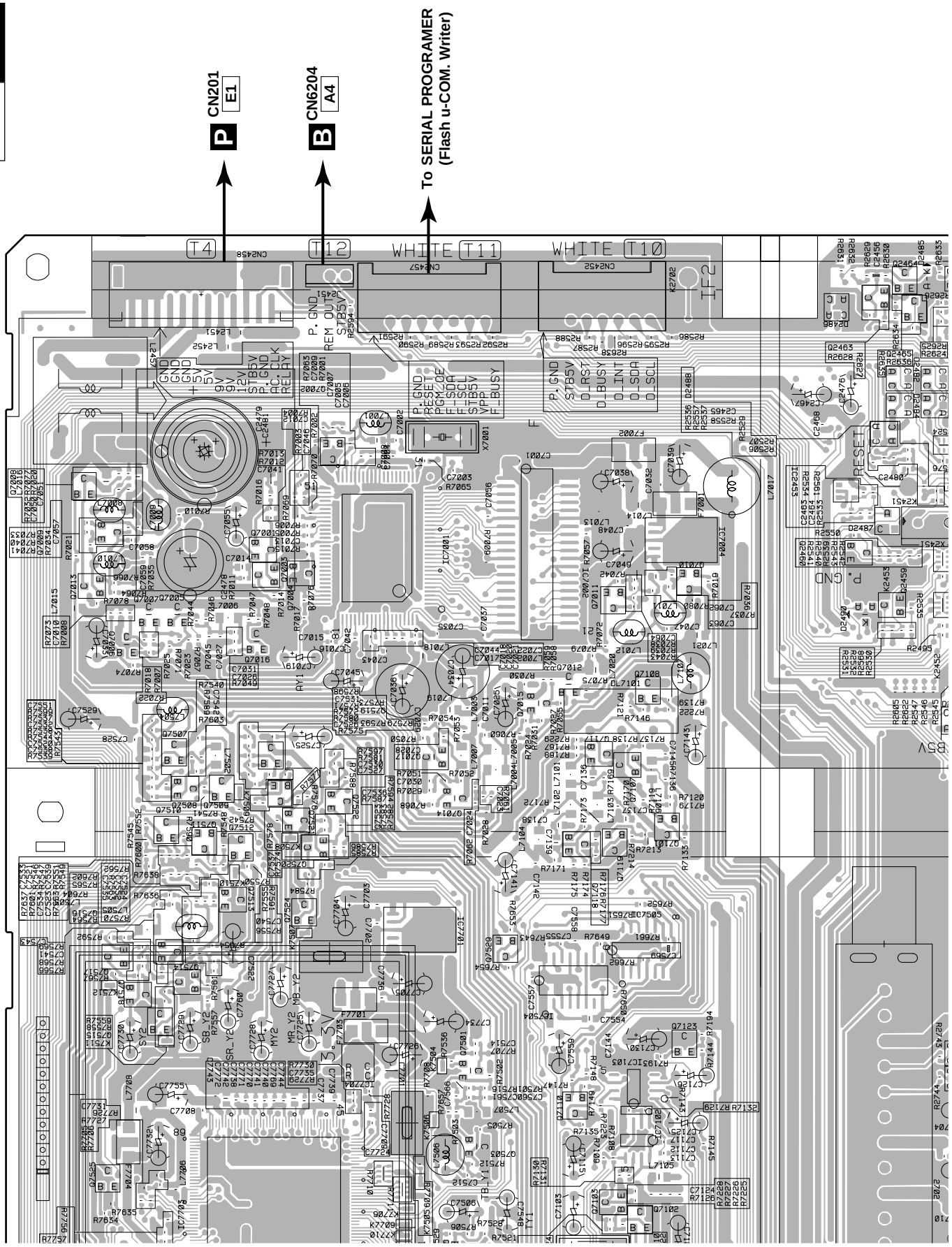
A SIGNAL ASSY

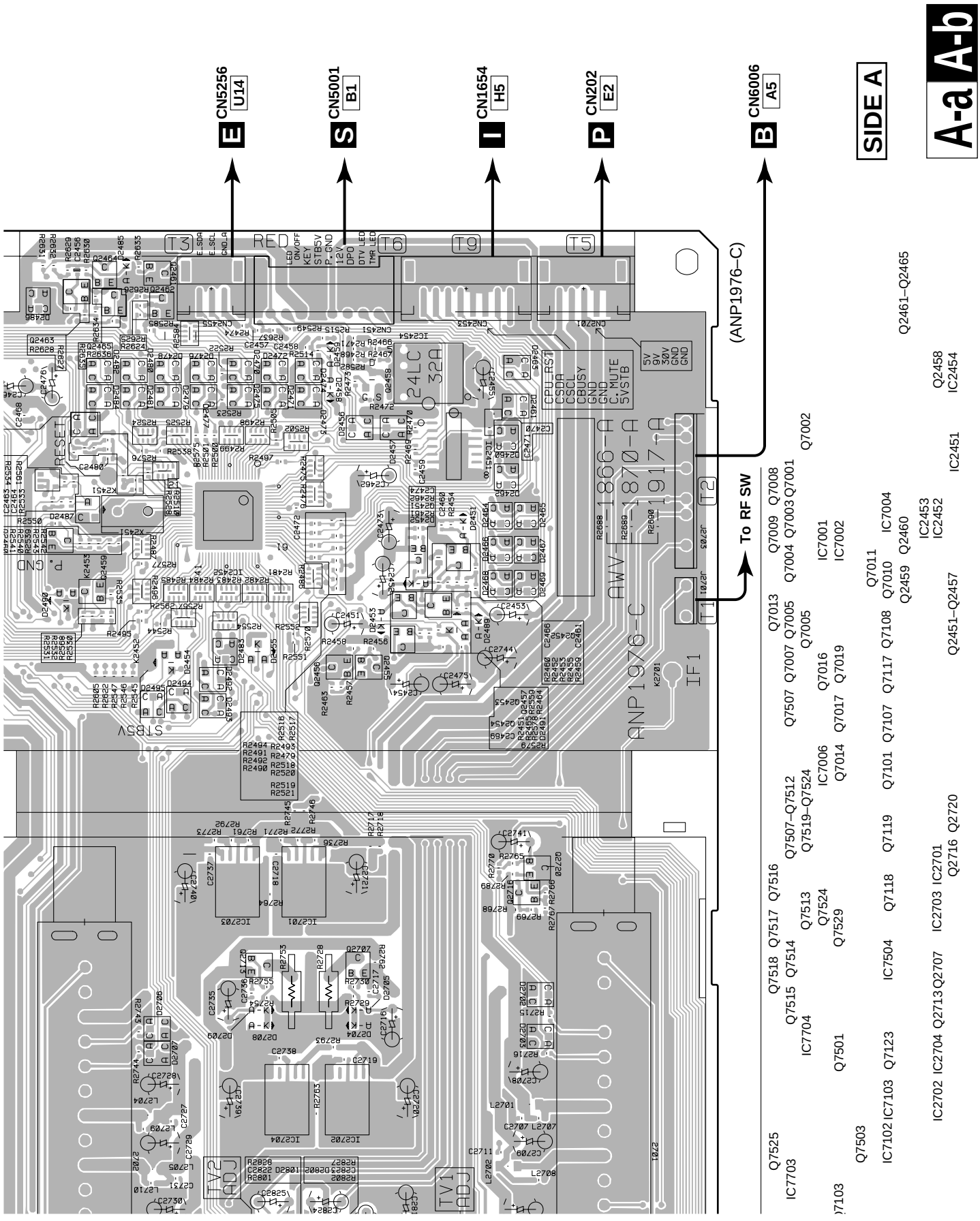
A-a A-b



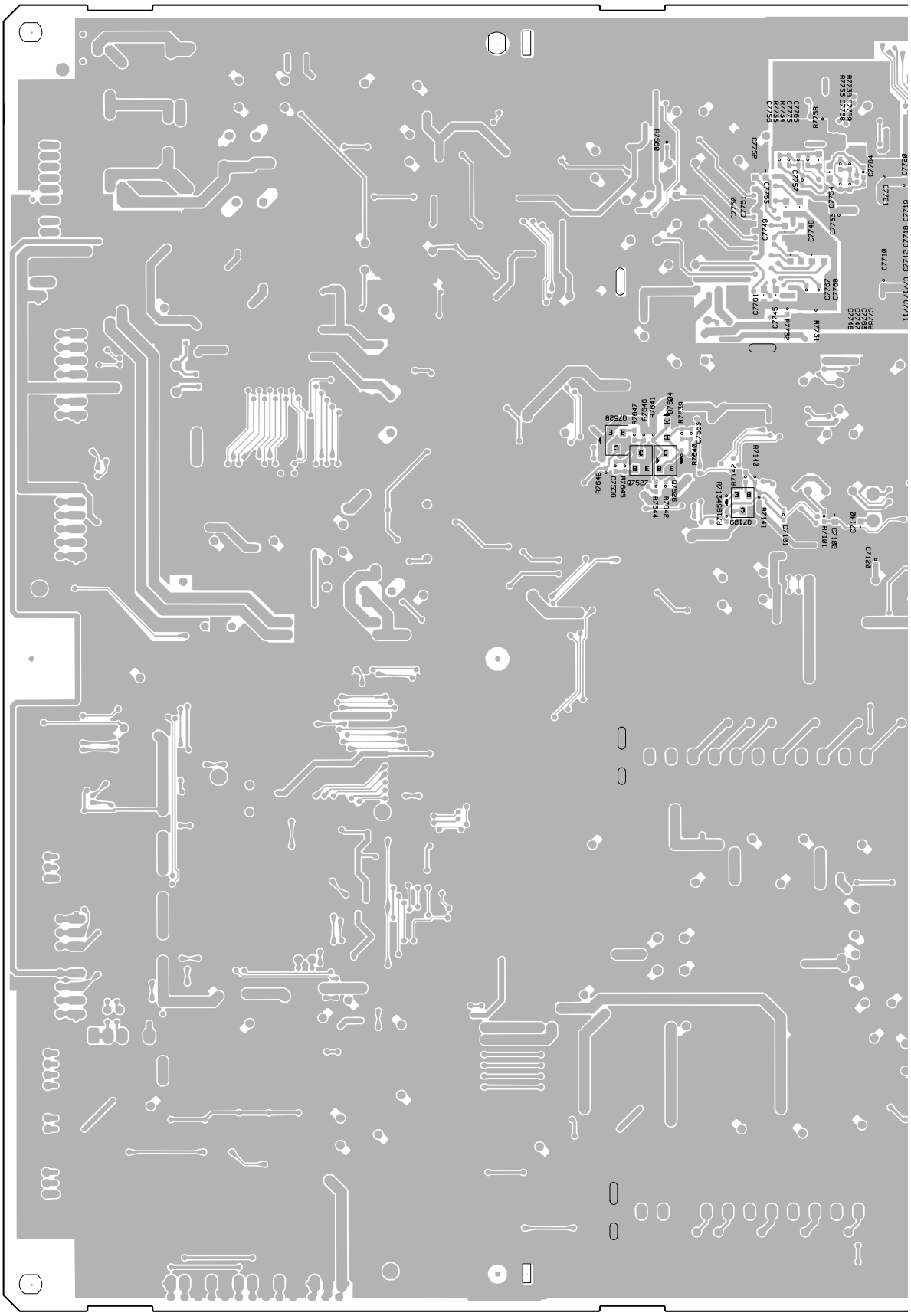
A-a
A-b
SIDE A
CN5603
U10
CN2454
VR2701 VR2702
Q7525
IC7703
IC7101
IC7102
Q7503
Q7102 Q7103
Q2719 Q2717 Q2715 Q2714
IC2801
Q2708 Q2709
IC7702
Q7505 Q7506
Q2710–Q2712
Q2801–Q2803
IC2802
Q2801
Q2706 Q2701–Q2704
Q7304
Q7308 Q7303
Q7309 Q7307
Q7310 IC7503
Q7502
Q7128
Q7105 Q7104
Q7111–Q7115
IC7303 Q7317
IC7503
Q7326 IC7307
IC7300
IC7304
Q7319 Q7315
IC7308 Q7318 Q7316
Q7320 Q7314
IC7302
Q6356 Q6352 IC6304
Q6324 Q6325 Q6351 Q6357 Q6355
Q6322 Q6313 Q6353 Q6321 IC6301 Q6320
Q6314–Q6319 Q6340 Q6330 Q6306 Q6301 Q6303 Q6304
Q6331–Q6333 Q6343 IC6302 IC6303 Q6346–Q6348
IC6305 Q6334 Q6361–Q6363 Q6337–Q6339

A-a A-b


P CN201 E1
B CN6204 A4
To SERIAL PROGRAMER (Flash u-COM. Writer)
T4
T12
WHITE T11
WHITE T10
CN2458
CN2457
CN2452
P.GND
REM OUT
STB5V
GND
GND
GND
+5V
5V
9V
12V
STB5V
P.GND
AC.CLK
RELAY
P.GND
RESET
PGMCOE
F_SDA
F_SCL
STB5V
VPP
F_BUSY
P.GND
STB5V
D_RST
D_BUSY
D_INT
D_SDA
D_SCL
RESET
P.GND
3.3V
5V


A-a A-b
SIDE A
E CN5256 U14
S CN5001 B1
I CN1654 H5
P CN202 E2
B CN6006 A5
(ANP1976–C)
To RF SW
ANP1976-C
1866-A
1870-A
1917-A
IF1
Q7002
Q7009 Q7008
Q7004 Q7003 Q7001
Q7013
Q7005
IC7001
IC7002
Q7011
IC7004
Q7010
Q7108
Q7117
Q7107
Q7101
Q7119
Q7118
IC7504
Q7123
IC7103
IC2704
IC2702
Q2713
Q2707
IC2703
IC2701
Q2716
Q2720
Q7516
Q7507–Q7512
Q7519–Q7524
IC7006
Q7014
Q7017
Q7019
Q7016
Q7005
Q7007
Q7513
Q7524
Q7529
Q7514
Q7515
IC7704
Q7501
Q7517
Q7518
Q7525
IC7703
Q7503
IC7102
Q2461–Q2465
Q2458
IC2454
IC2451
IC2453
IC2452
Q2460
Q2459
Q2451–Q2457
Q2718
Q2717
Q2705
Q2715
Q2702
Q2709
Q2708
Q2701
L2701
L2707
L2708
L2702
C2711
C2709
C2708
C2707
C2706
C2705
C2704
C2703
C2702
C2701
C2720
C2719
C2718
C2717
C2716
C2715
C2714
C2713
C2712
C2711
C2710
C2709
C2708
C2707
C2706
C2705
C2704
C2703
C2702
C2701
C2738
C2737
C2736
C2735
C2734
C2733
C2732
C2731
C2730
C2729
C2728
C2727
C2726
C2725
C2724
C2723
C2722
C2721
C2720
C2719
C2718
C2717
C2716
C2715
C2714
C2713
C2712
C2711
C2710
C2709
C2708
C2707
C2706
C2705
C2704
C2703
C2702
C2701
C2744
C2741
C2475
C2454
C2453
C2451
C2462
C2480
C2472
C2457
C2458
C2459
C2460
C2461
C2466
C2469
C2468
C2467
C2465
C2464
C2463
C2462
C2461
C2460
C2459
C2458
C2457
C2456
C2455
C2454
C2453
C2452
C2451
C2450
C2449
C2448
C2447
C2446
C2445
C2444
C2443
C2442
C2441
C2440
C2439
C2438
C2437
C2436
C2435
C2434
C2433
C2432
C2431
C2430
C2429
C2428
C2427
C2426
C2425
C2424
C2423
C2422
C2421
C2420
C2419
C2418
C2417
C2416
C2415
C2414
C2413
C2412
C2411
C2410
C2409
C2408
C2407
C2406
C2405
C2404
C2403
C2402
C2401
C2400
C2399
C2398
C2397
C2396
C2395
C2394
C2393
C2392
C2391
C2390
C2389
C2388
C2387
C2386
C2385
C2384
C2383
C2382
C2381
C2380
C2379
C2378
C2377
C2376
C2375
C2374
C2373
C2372
C2371
C2370
C2369
C2368
C2367
C2366
C2365
C2364
C2363
C2362
C2361
C2360
C2359
C2358
C2357
C2356
C2355
C2354
C2353
C2352
C2351
C2350
C2349
C2348
C2347
C2346
C2345
C2344
C2343
C2342
C2341
C2340
C2339
C2338
C2337
C2336
C2335
C2334
C2333
C2332
C2331
C2330
C2329
C2328
C2327
C2326
C2325
C2324
C2323
C2322
C2321
C2320
C2319
C2318
C2317
C2316
C2315
C2314
C2313
C2312
C2311
C2310
C2309
C2308
C2307
C2306
C2305
C2304
C2303
C2302
C2301
R2688
R2689
R2690
R2691
R2692
R2693
R2694
R2695
R2696
R2697
R2698
R2699
R2700
R2701
R2702
R2703
R2704
R2705
R2706
R2707
R2708
R2709
R2710
R2711
R2712
R2713
R2714
R2715
R2716
R2717
R2718
R2719
R2720
R2721
R2722
R2723
R2724
R2725
R2726
R2727

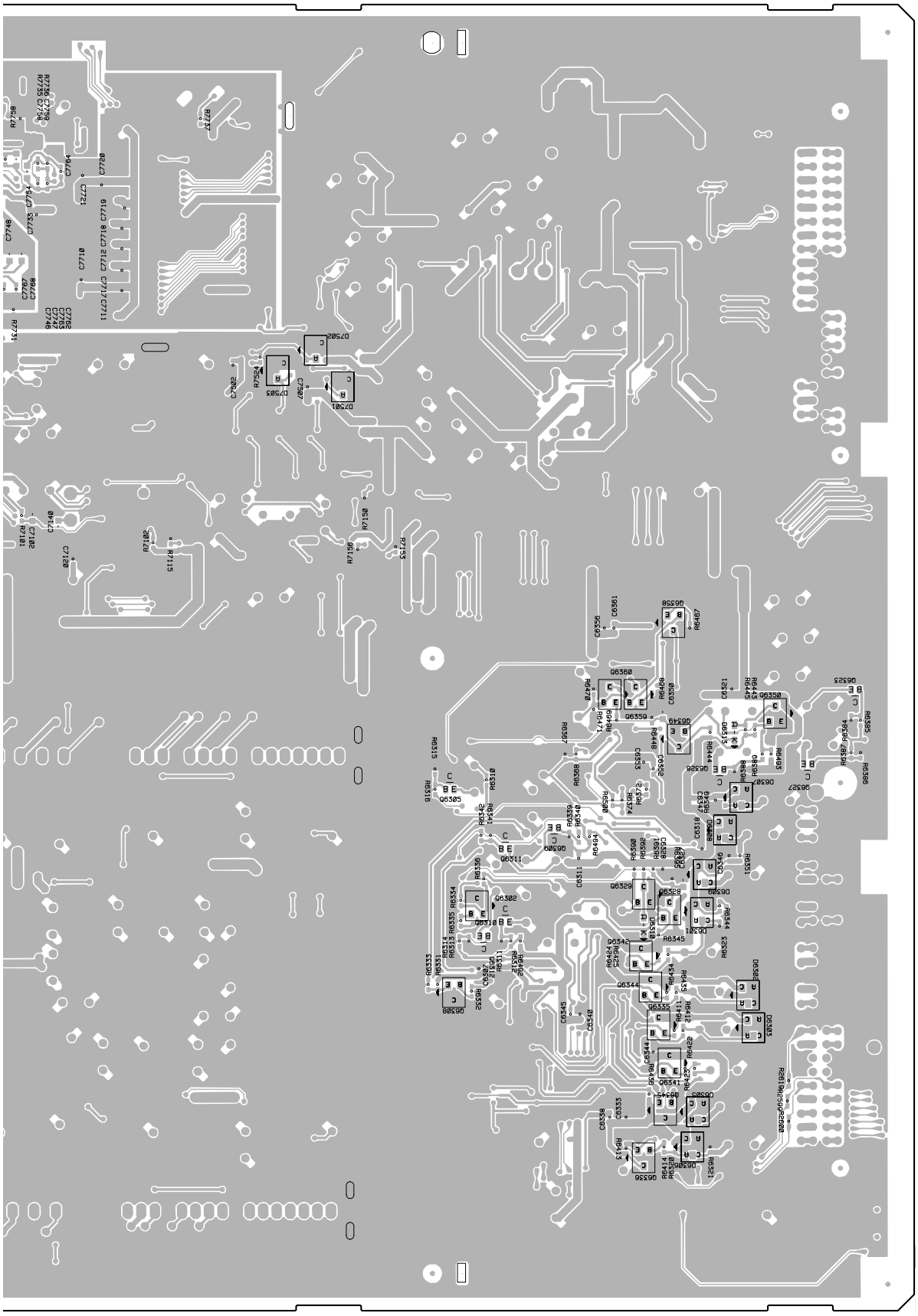
A SIGNAL ASSY A-a



Q7528
Q7527 Q7526 Q7109

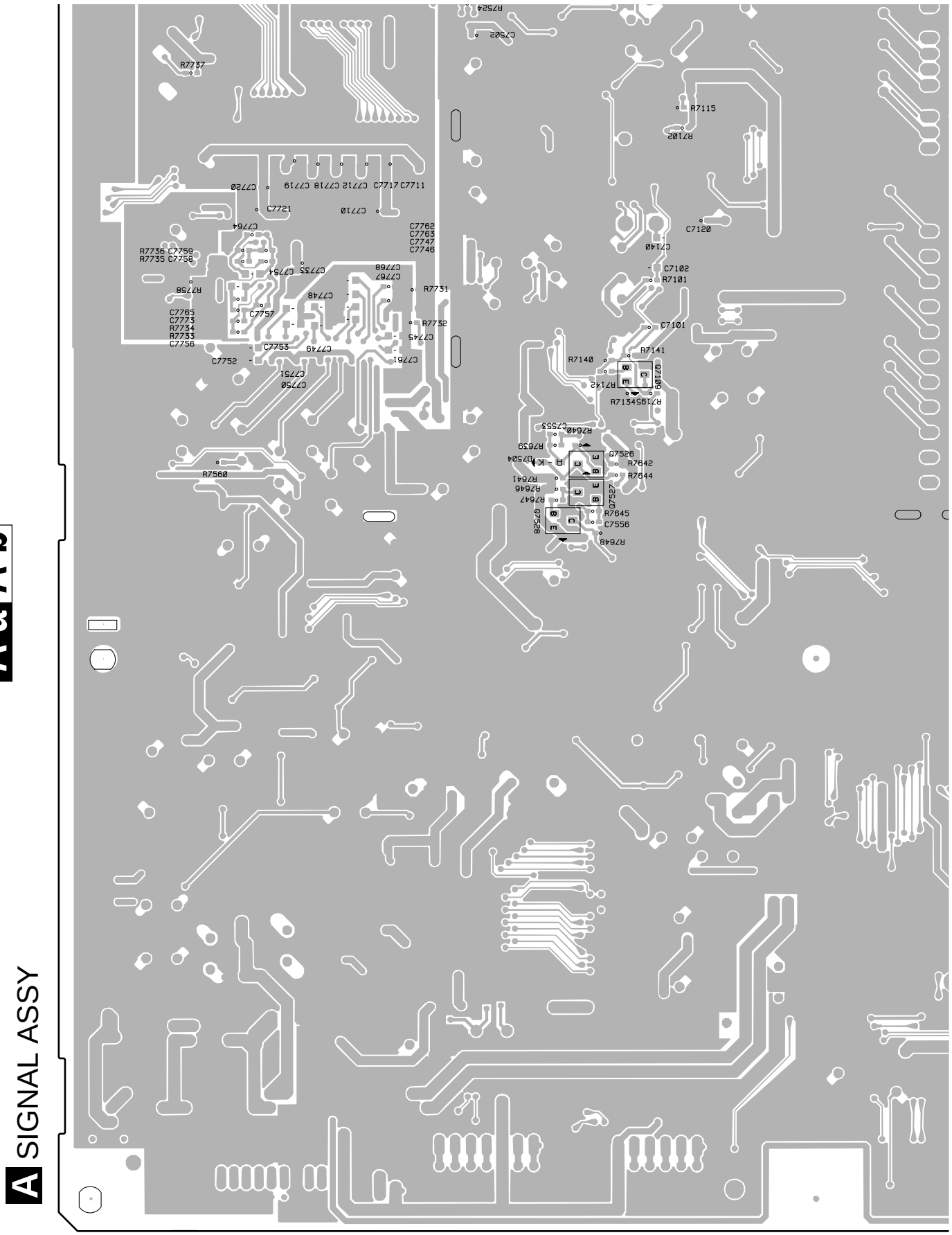
SIDE B

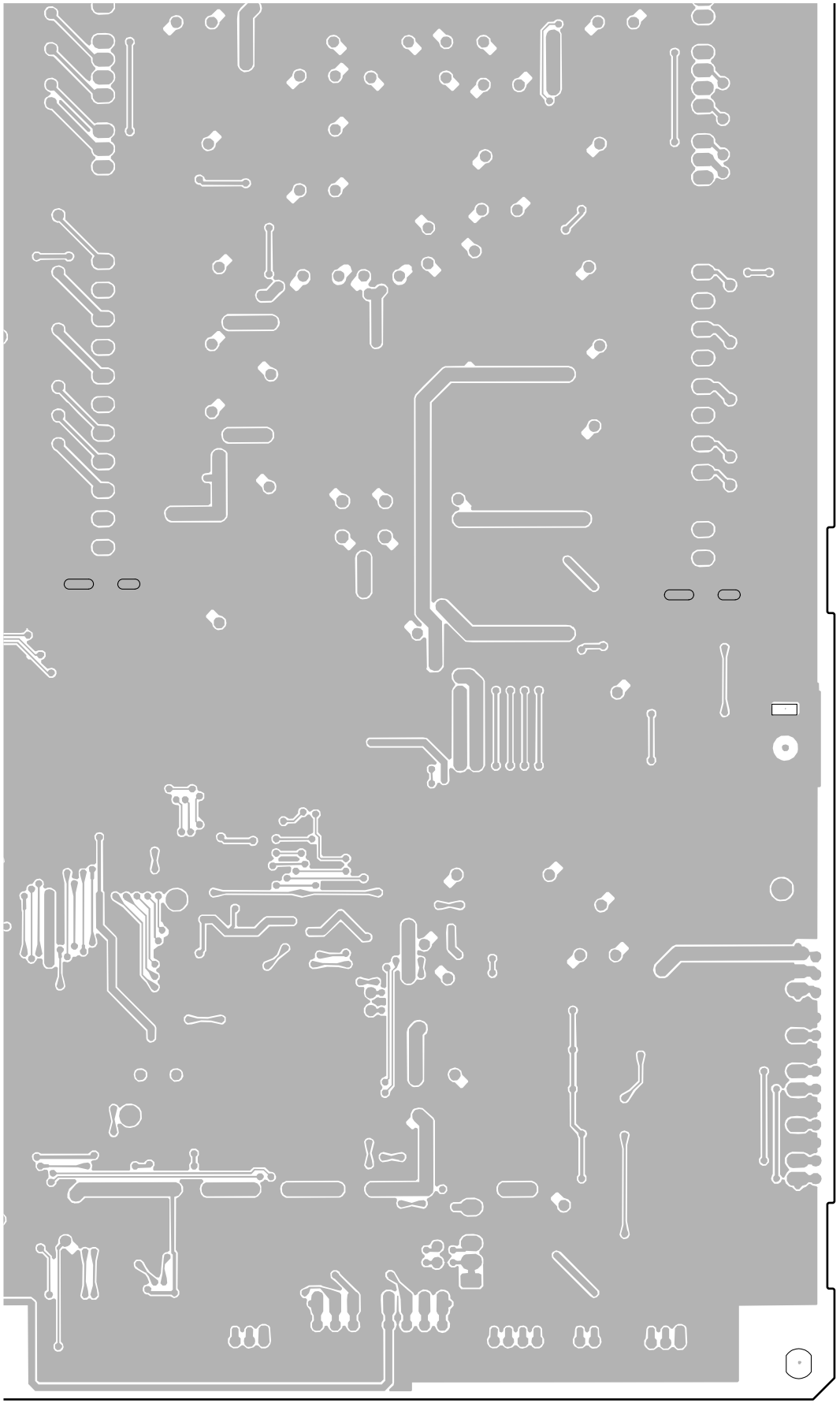
A-b



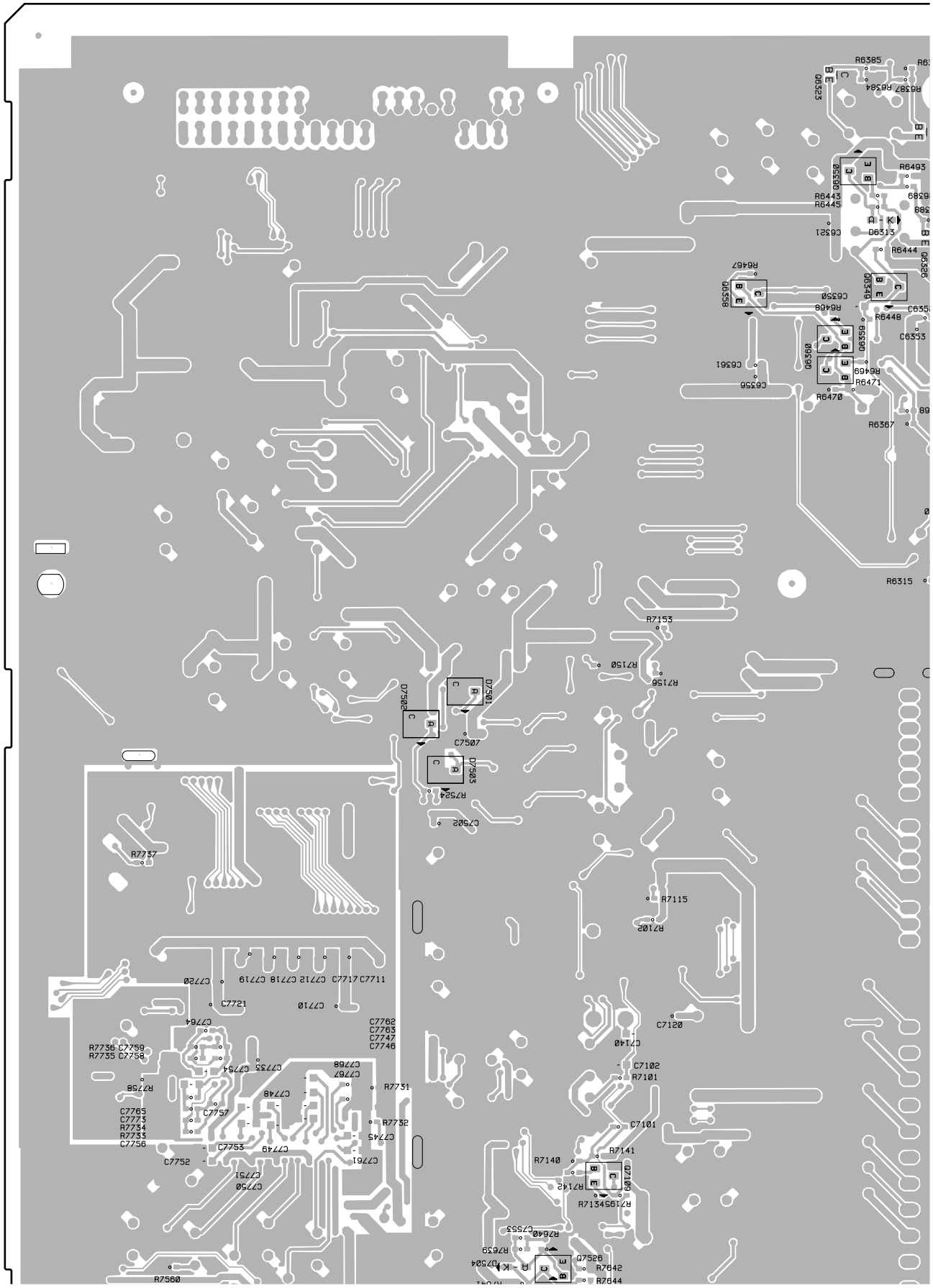
(ANP1976–C)

Q6305 Q6311 Q6309 Q6360 Q6359 Q6358 Q6350 Q6327 Q6325
Q6302 Q6349 Q6326
Q6308 Q6310 Q6329 Q6328
Q6344 Q6335
Q6341
Q6336 Q6345

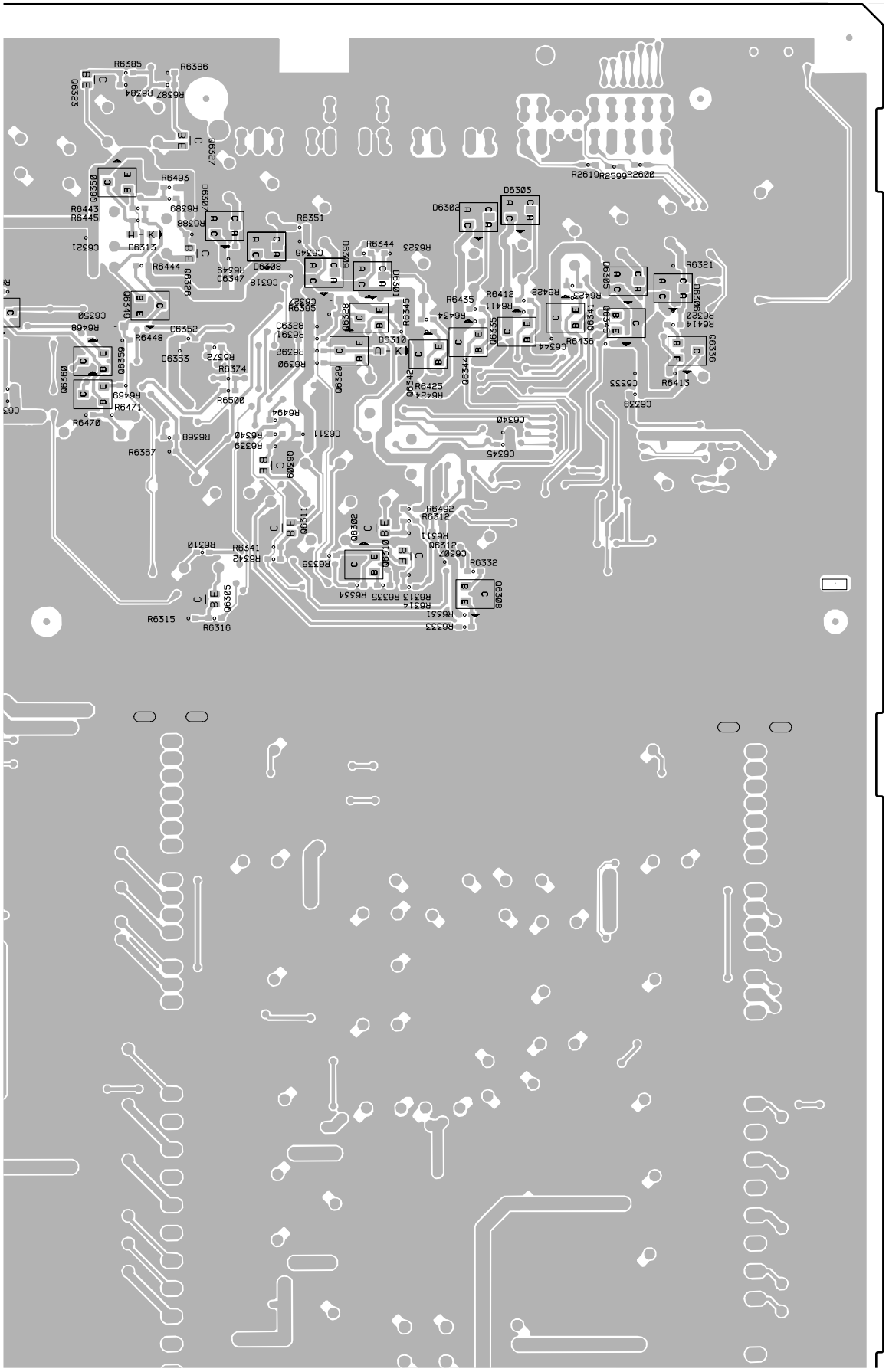

A-a A-b
A SIGNAL ASSY



A-a A-b



A-a A-b



(ANP1976–C)

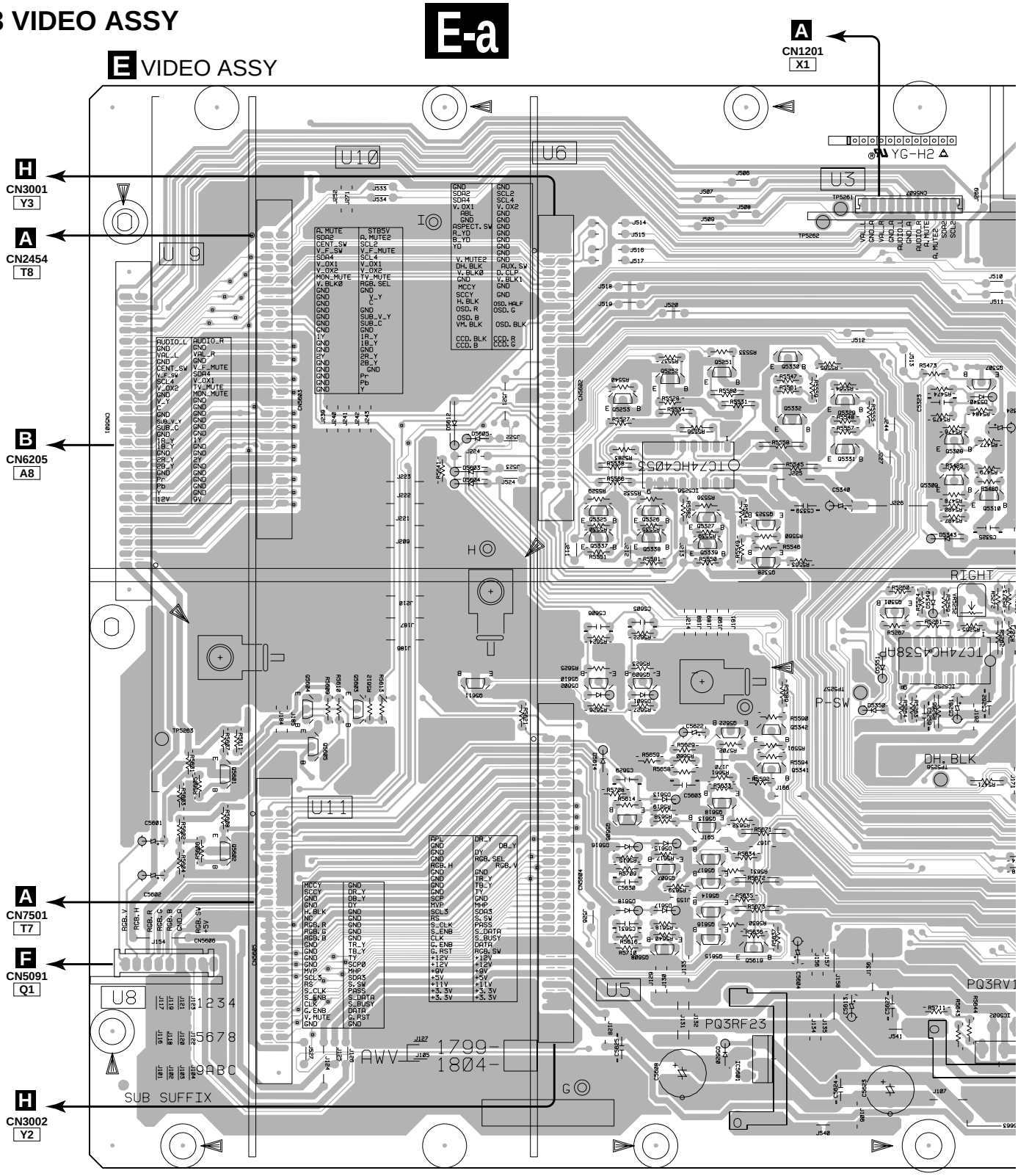
Q6325 Q6327 Q6350 Q6326 Q6358 Q6349 Q6328 Q6329 Q6344 Q6335 Q6341 Q6345 Q6336 Q6359 Q6360 Q6309 Q6311 Q6302 Q6310 Q6308 Q6305 Q7109 Q7526

A-a A-b

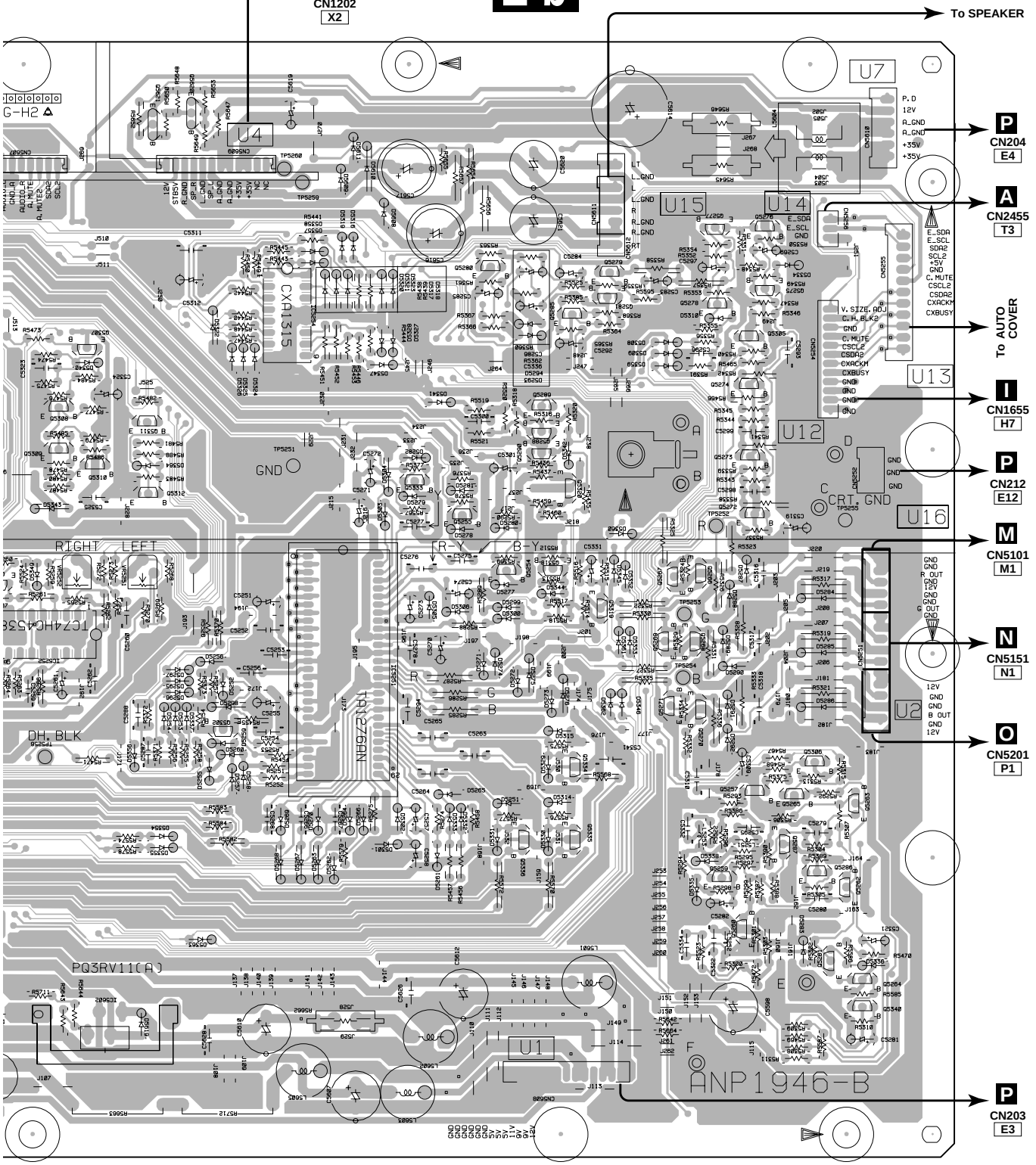
SIDE B

4.3 VIDEO ASSY

E-a

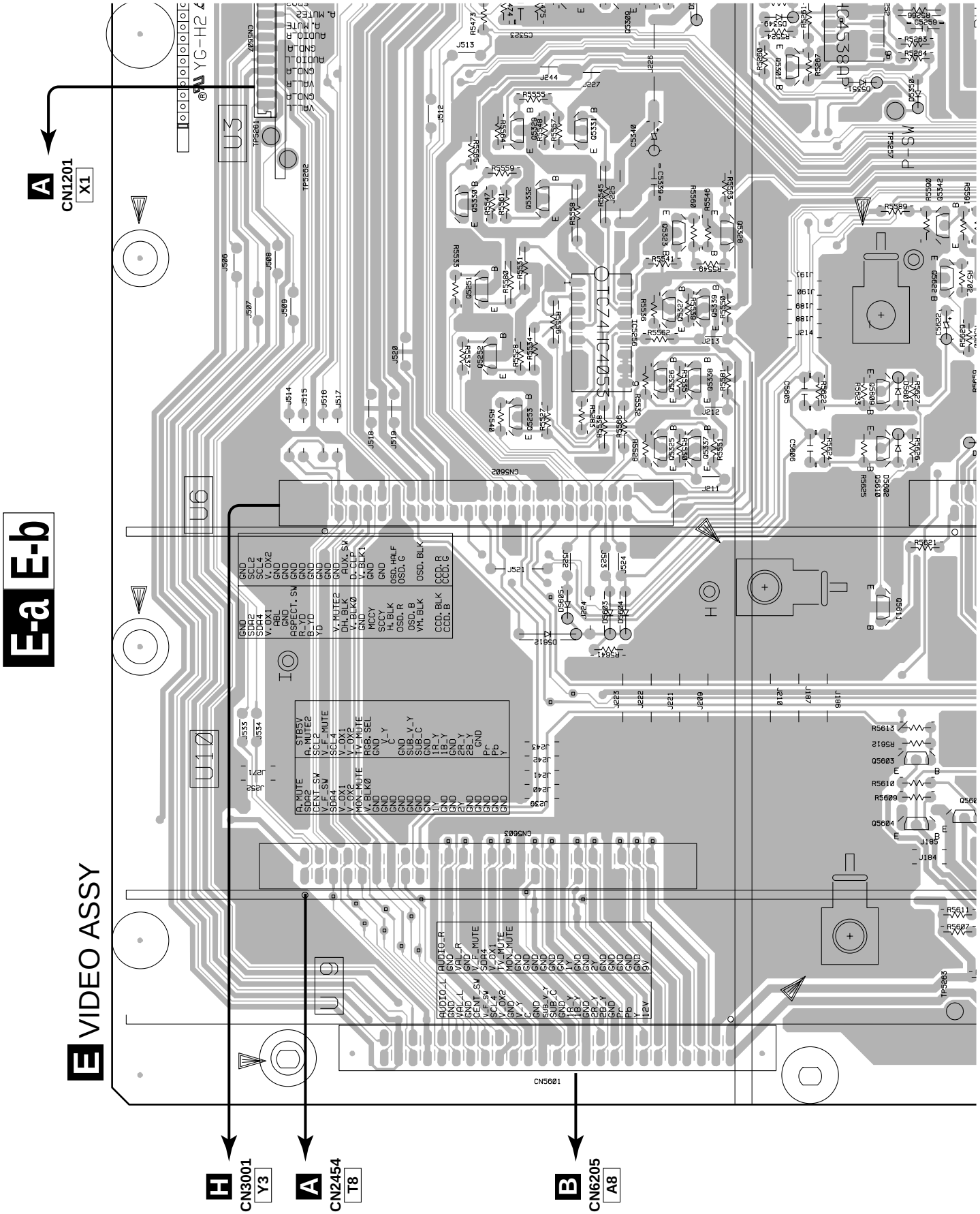


E-b

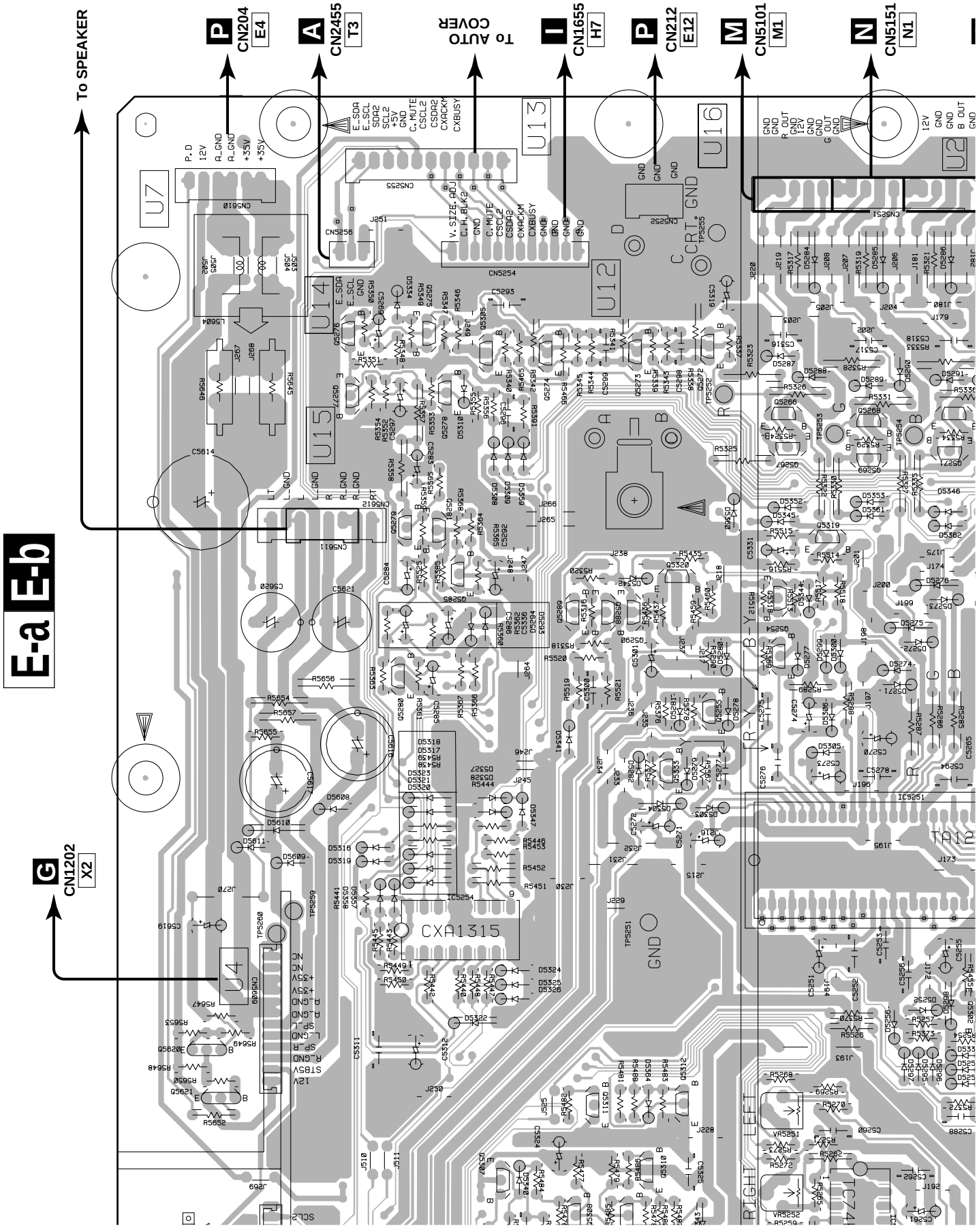


(ANP1946–B)

VR5252 VR5251
Q5621 Q5620
IC5254
Q5307–Q5312
Q5333
Q5280 Q5279 Q5281 Q5275–Q5278
Q5285 Q5305
Q5288–Q5290 Q5274
Q5273
Q5320 Q5272
Q5255
IC5252
Q5254 Q5318 Q5319 Q5266–Q5269
IC5251
Q5271 Q5270
Q5302
Q5334 Q5257 Q5265 Q5306
Q5263
Q5336 Q5335 Q5287
Q5259 Q5286 Q5262
Q5260 Q5261 Q5264
Q5340
IC5602

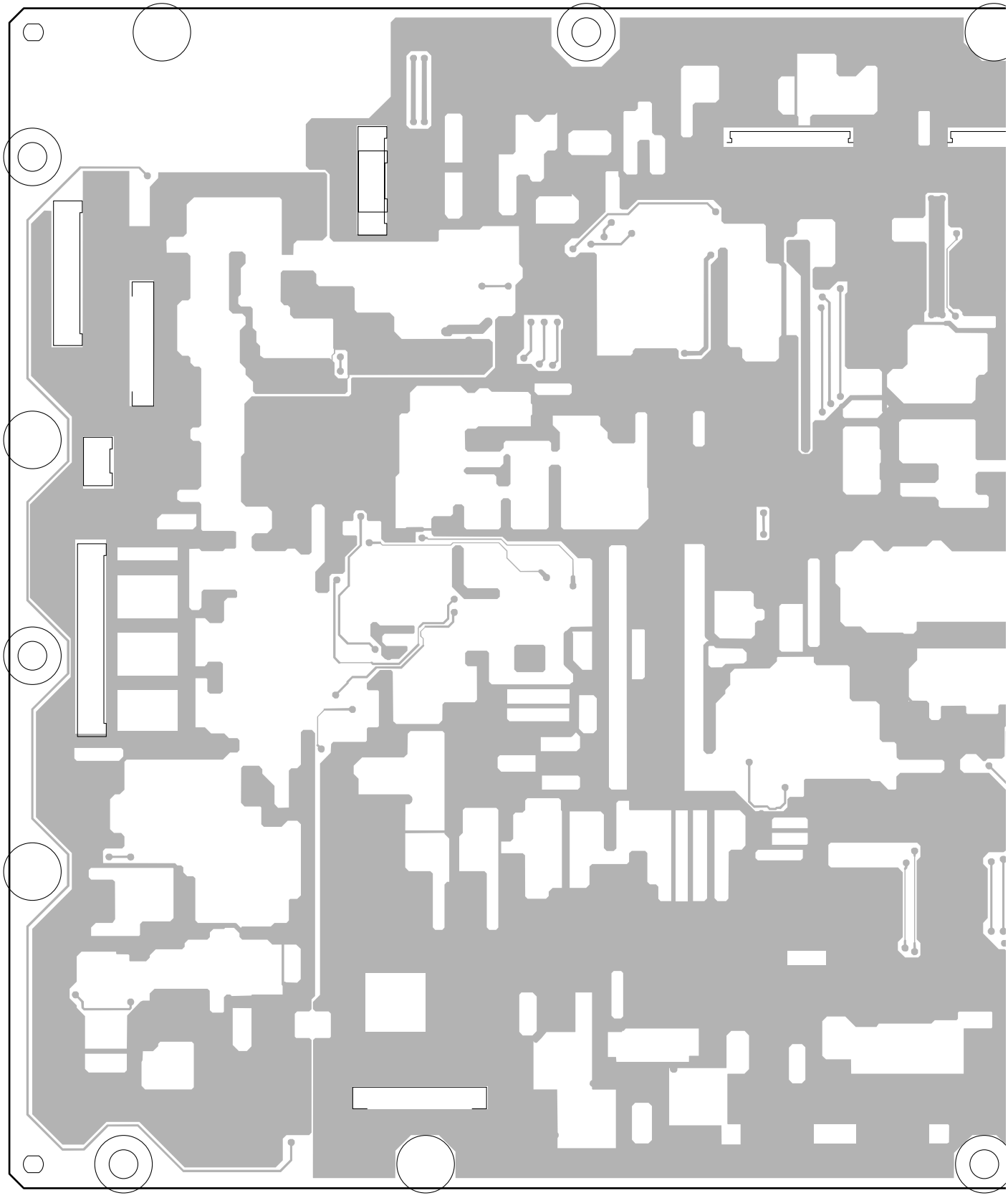

E VIDEO ASSY
E-a E-b
A CN1201 X1
H CN3001 Y3
A CN2454 T8
B CN6205 A8
U3
U6
U10
U9
IC4538BP
IC74HC4053F
CN5602
CN5603
CN5601

A
CN7501
T7
F
CN5091
Q1
H
CN3002
Y2
SIDE A
E-a
E-b
Q5601
Q5602
Q5603–Q5605
Q5611
Q5610
Q5609
Q5606–Q5608
Q5251–Q5253
IC5256
Q5325–Q5327
Q5337–Q5339
Q5622
Q5323
Q5328
Q5529–Q5532
Q5301
Q5342
Q5341
Q5613–Q5619
IC5601

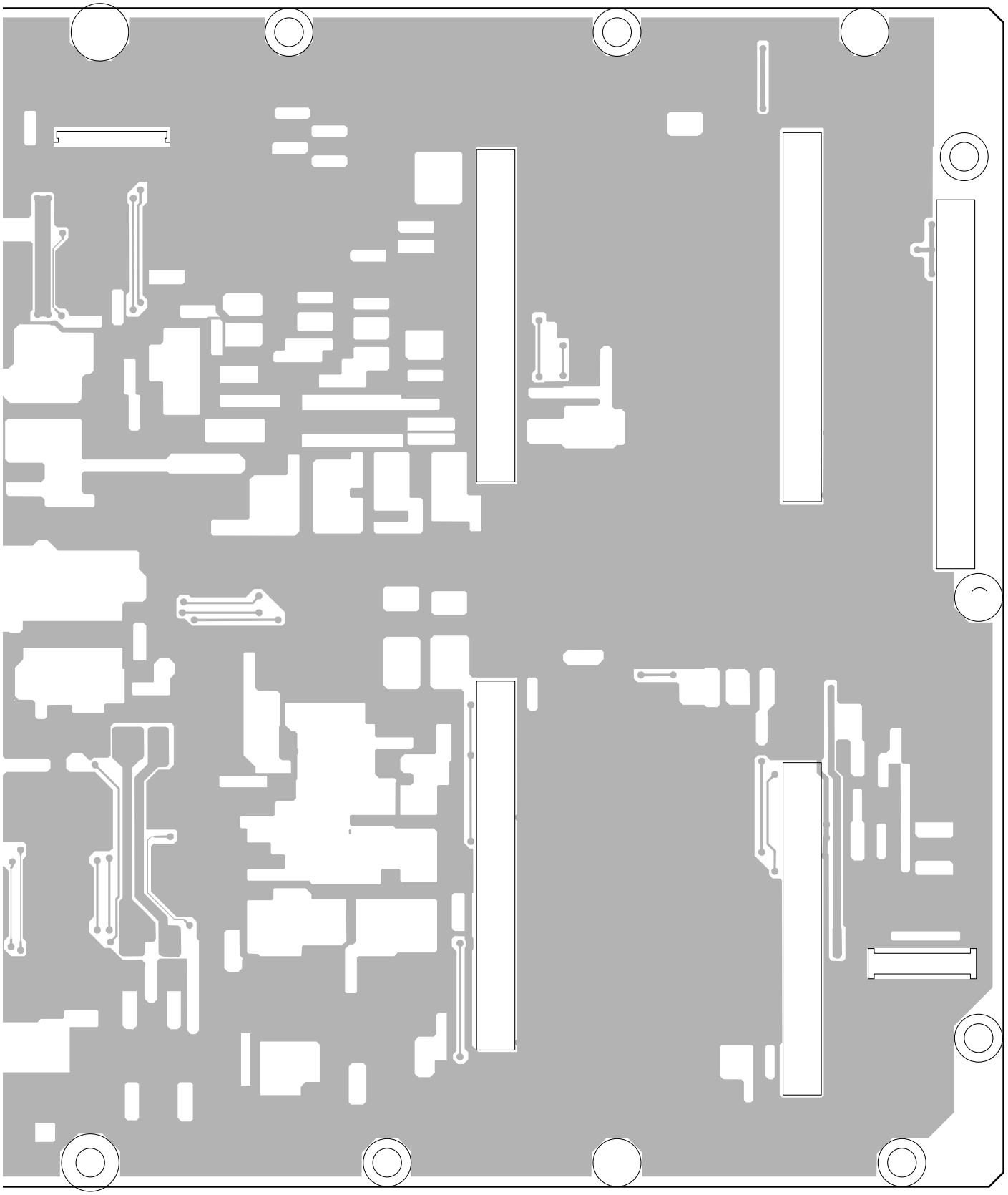

To SPEAKER
P CN204 E4
A CN2455 T3
To AUTO COVER
I CN1655 H7
P CN212 E12
M CN5101 M1
N CN5151 N1
G CN1202 X2
E-a
E-b
CXA1315
U13
U16
U12
U14
U15
U4
U7
U2
CRT GND
RIGHT DEF
RIGHT LEFT

CN5151
N1
O
CN5201
P1
P
CN203
E3
(ANP1946–B)
SIDE A
E-a
E-b
IC5251
IC5254
IC5602
VR5251
Q5252
Q5307–Q5312
Q5333
Q5620
Q5621
Q5254
Q5255
Q5280
Q5302
Q5320
Q5334
Q5335
Q5336
Q5257
Q5259
Q5260
Q5261
Q5262
Q5263
Q5264
Q5265
Q5270
Q5271
Q5272
Q5273
Q5274
Q5279
Q5281
Q5285
Q5287
Q5288–Q5290
Q5305
Q5306
Q5318
Q5319
Q5340
Q5257–Q5278
Q5266–Q5269
Q5286
TA1276AN
PQ3RV11(A)

E VIDEO ASSY



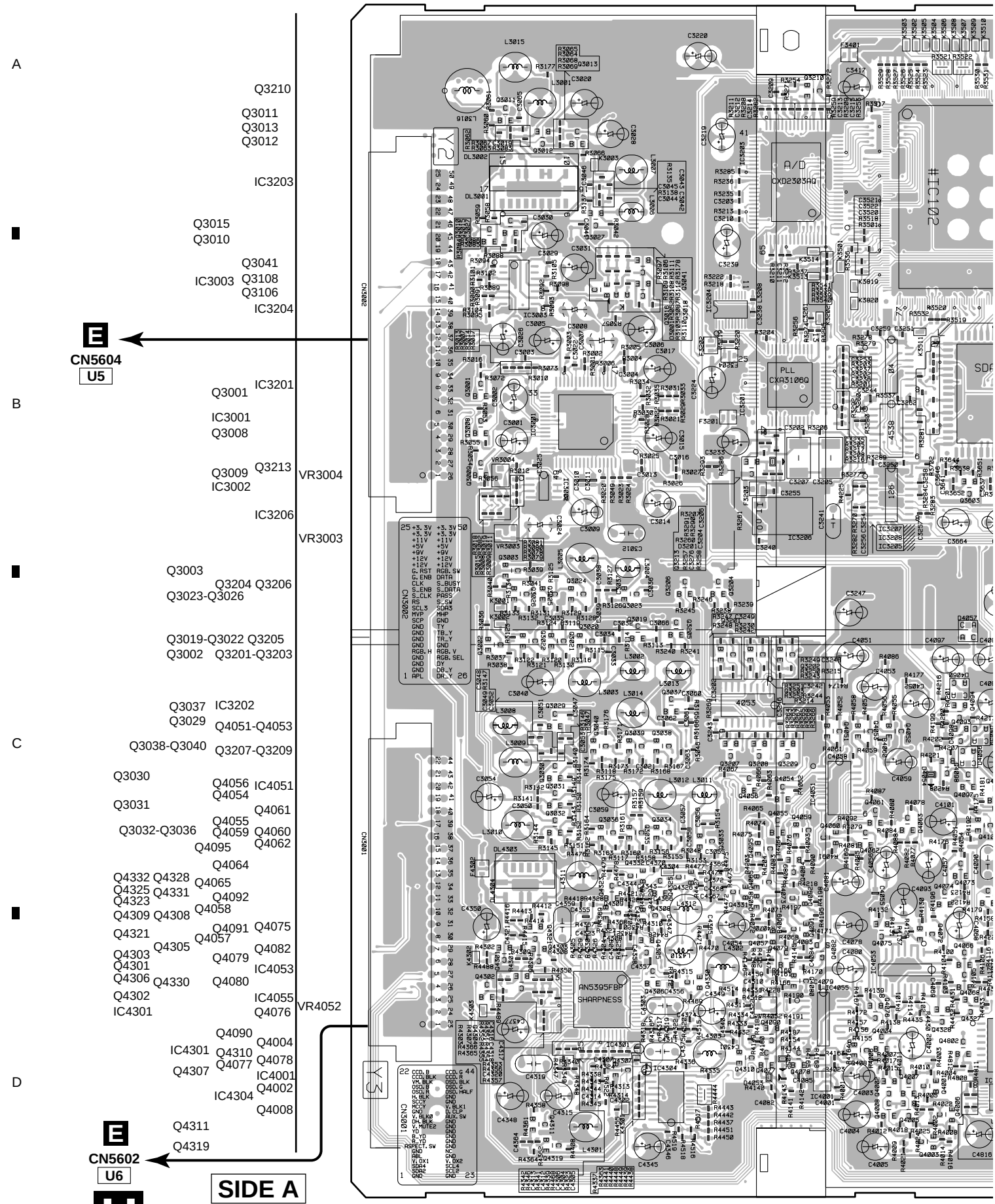
SIDE B



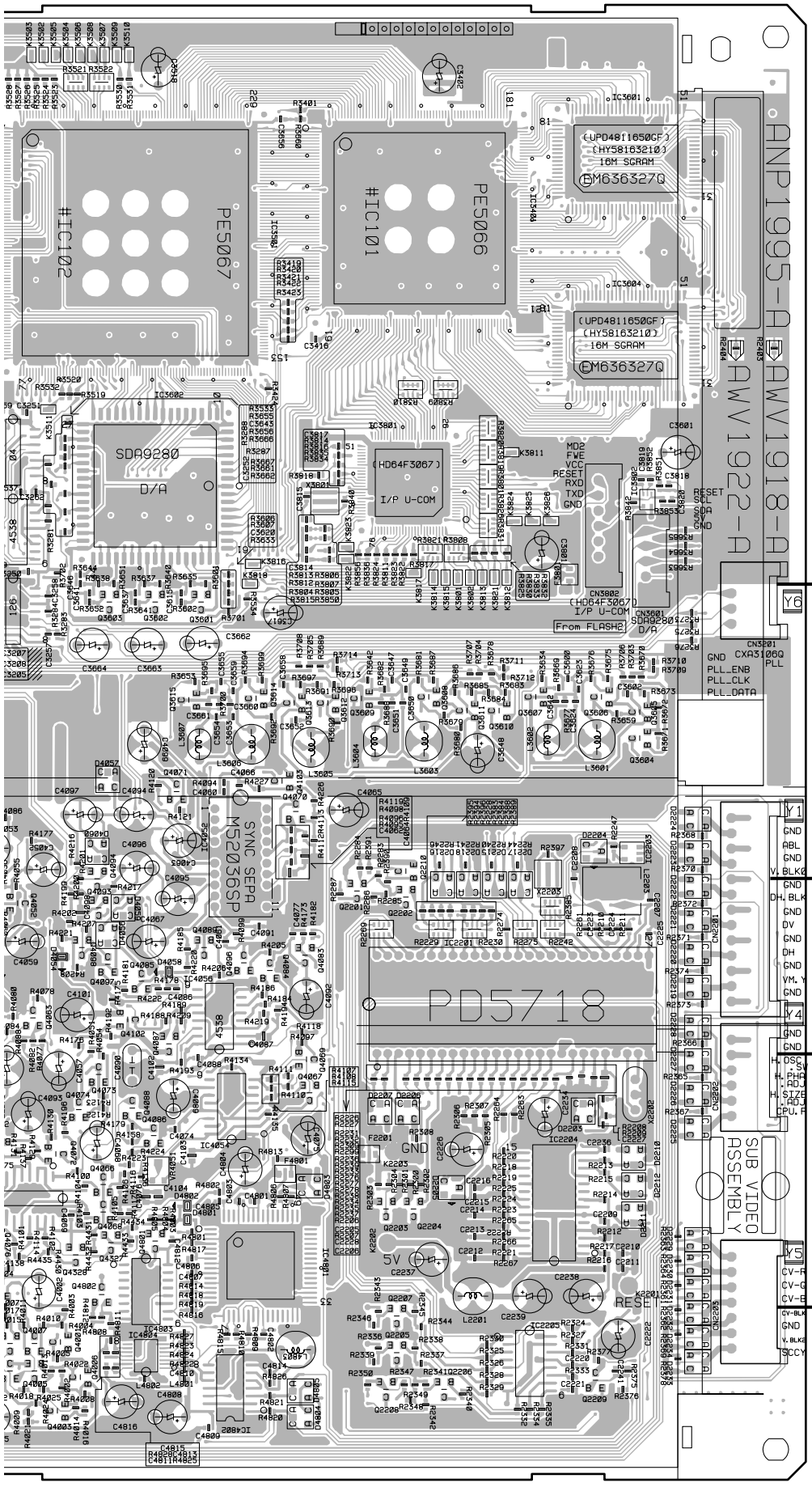
(ANP1946–B)

4.4 SUB VIDEO SERVICE ASSY

H SUB VIDEO SERVICE ASSY

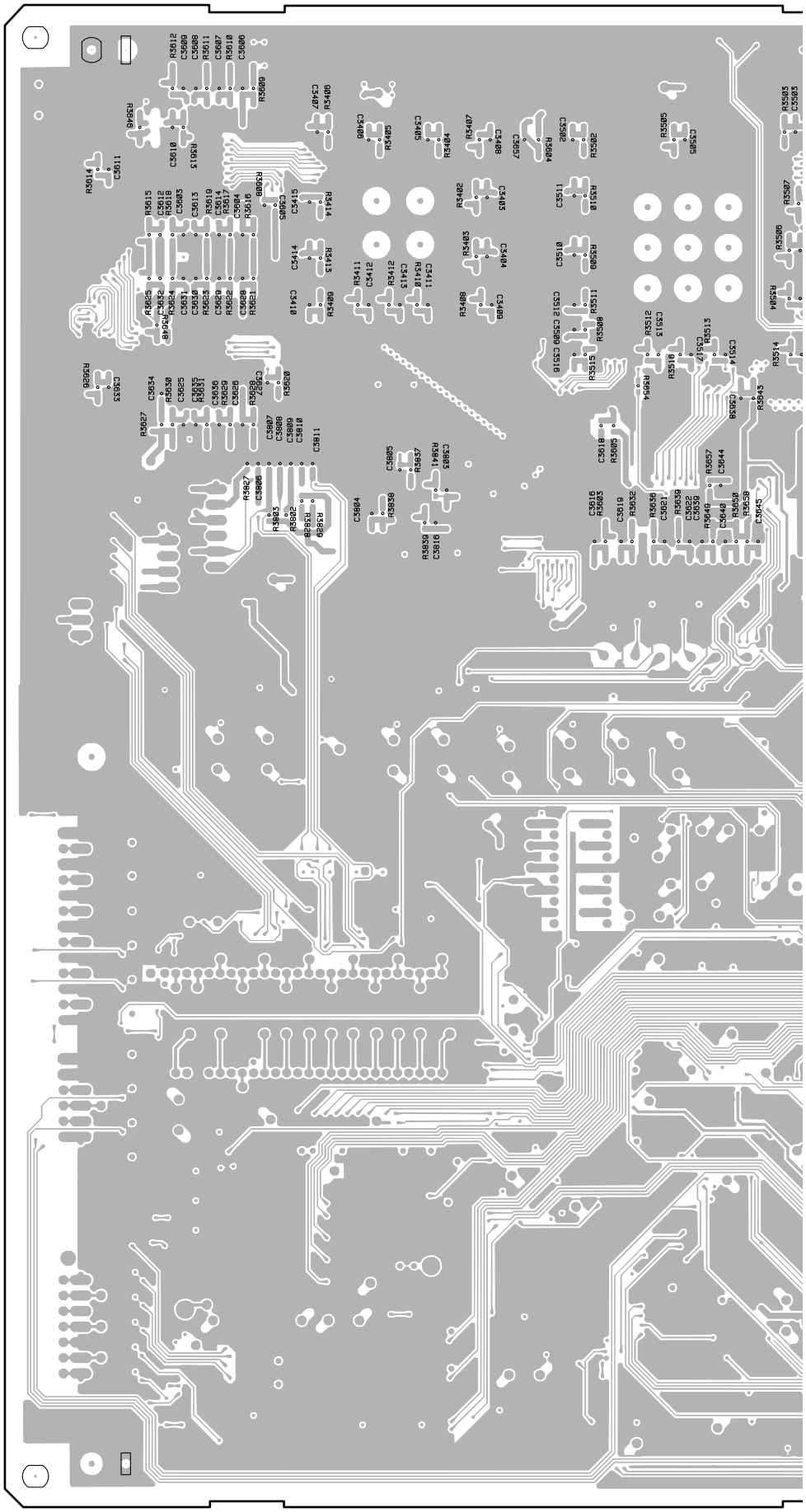


SSY

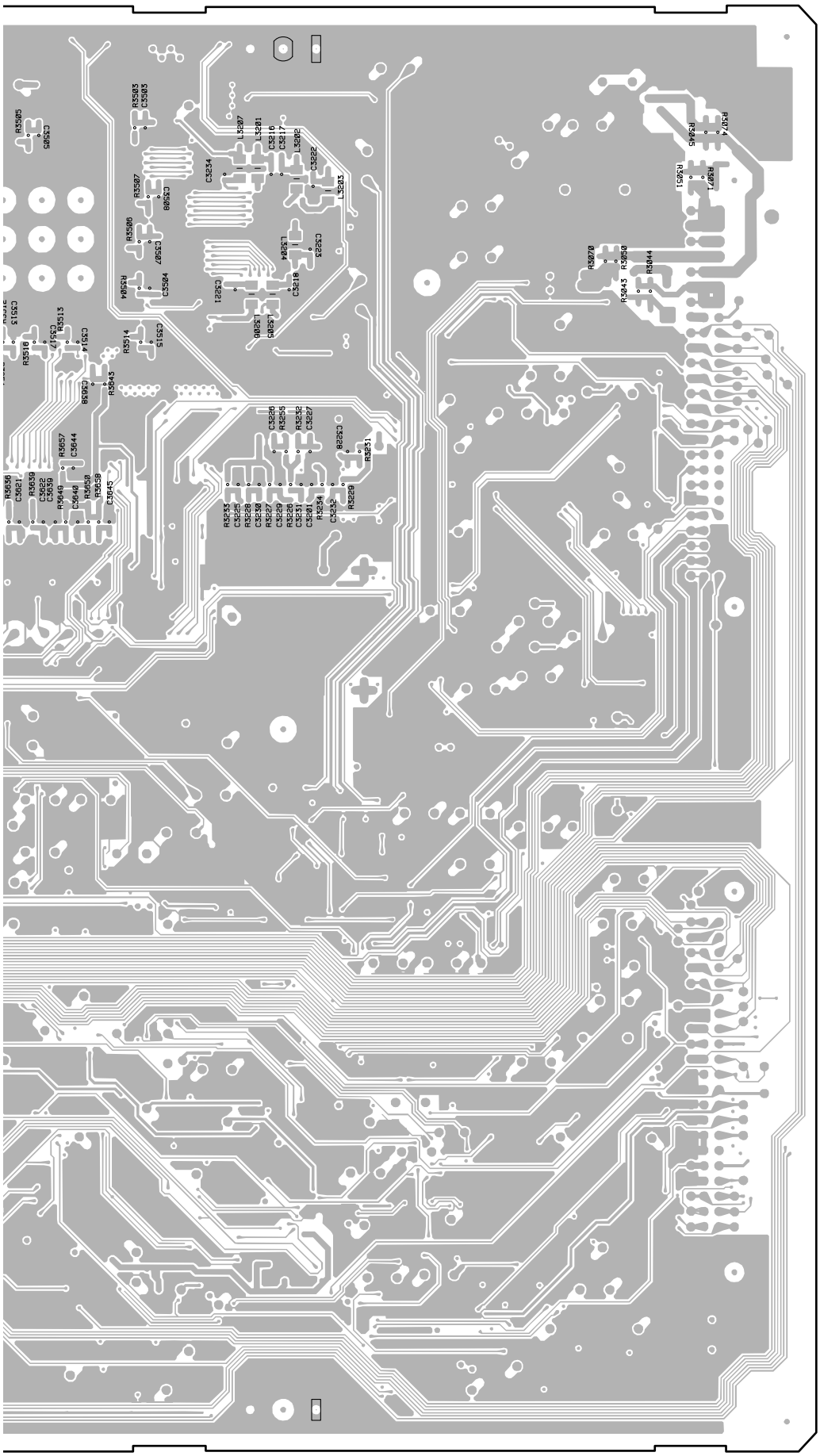


(ANP1995–A)

H SUB VIDEO SERVICE ASSY

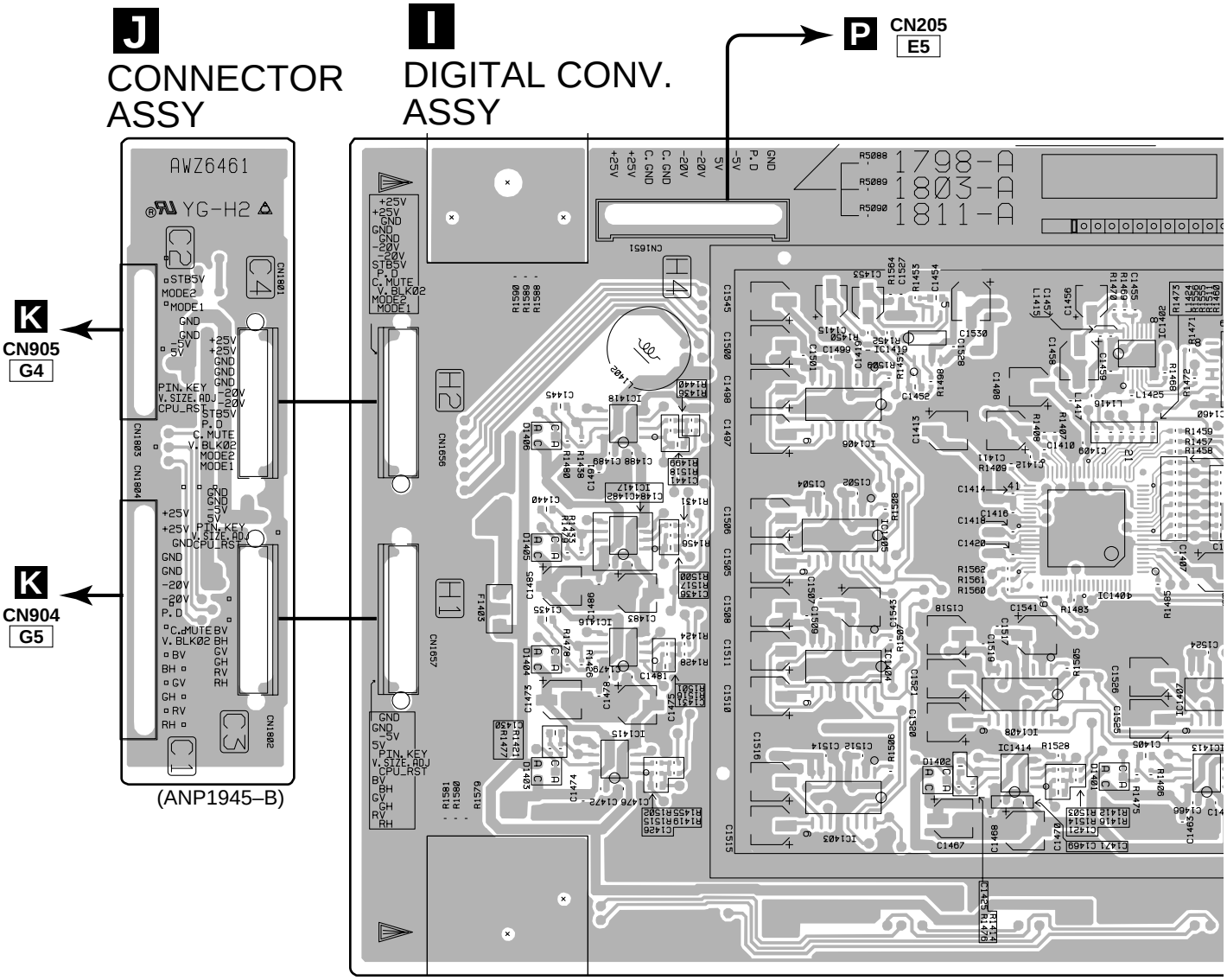


SIDE B



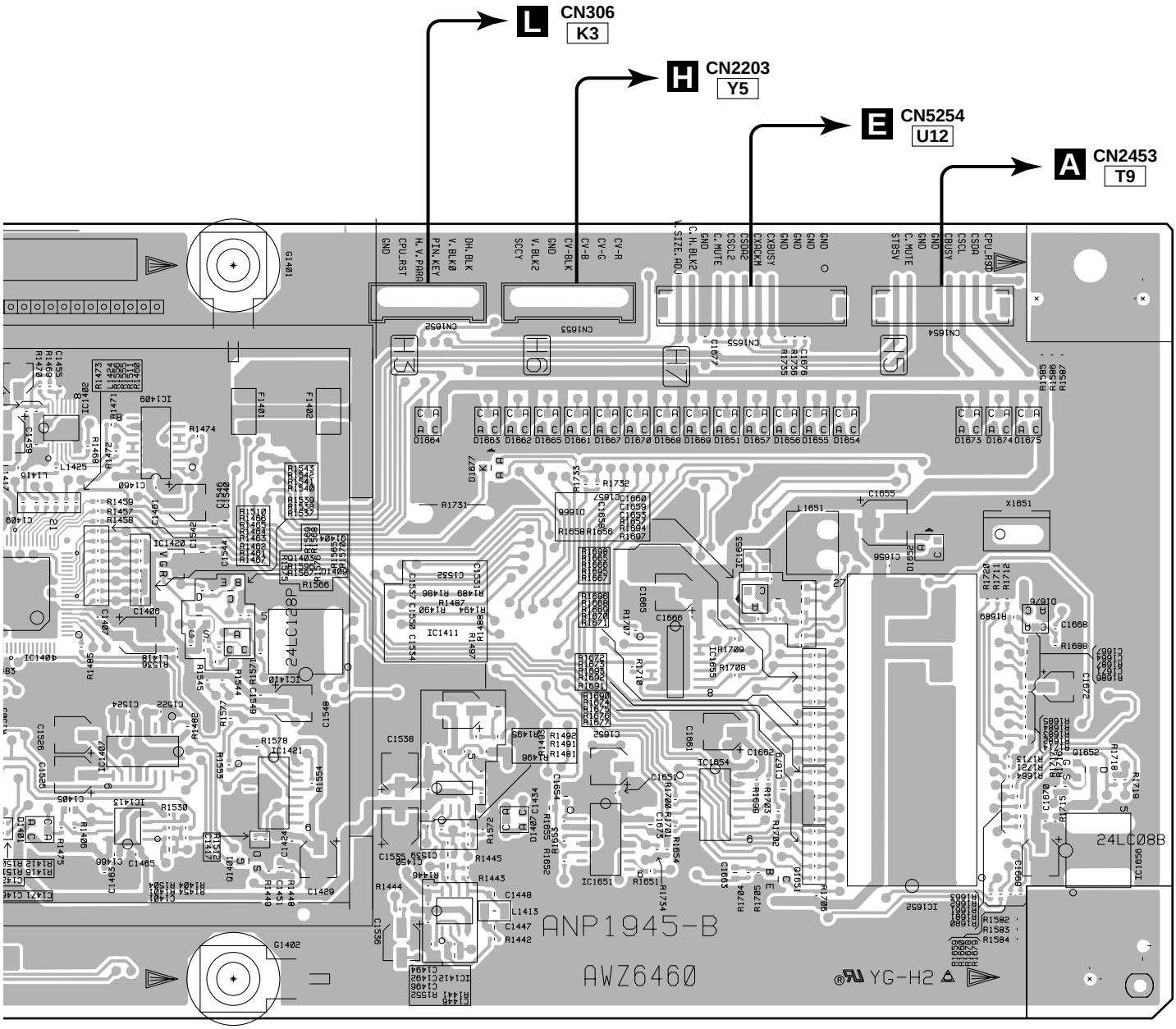
(ANP1995–A)

4.5 DIGITAL CONV. and CONNECTOR ASSYS



IC1406 IC1419 IC1402 IC
IC1418 IC1405 IC1401
IC1417 IC1404
IC1416 IC1408 IC1
IC1415 IC1403 IC1414 IC141

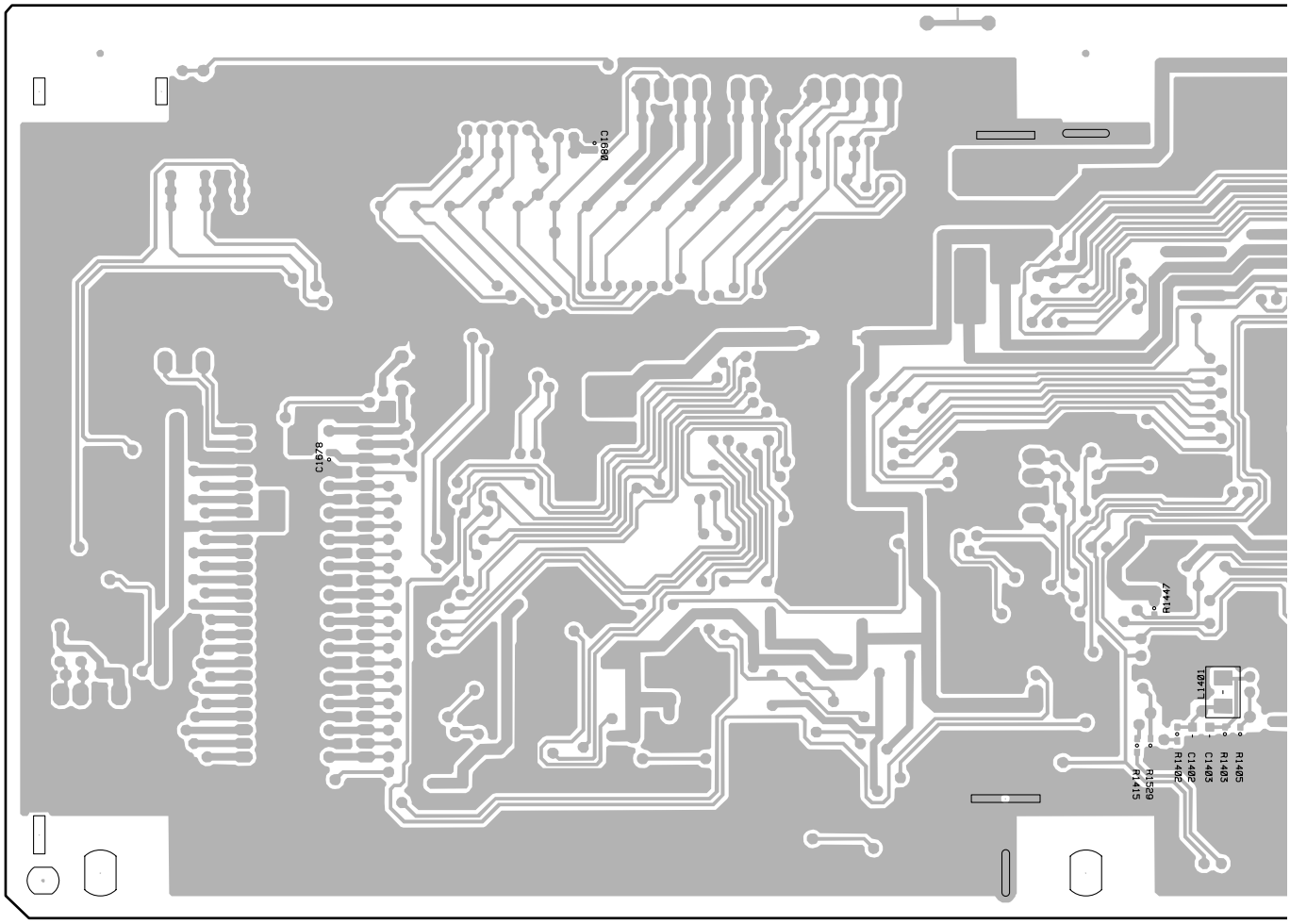
SIDE A



(ANP1945–B)

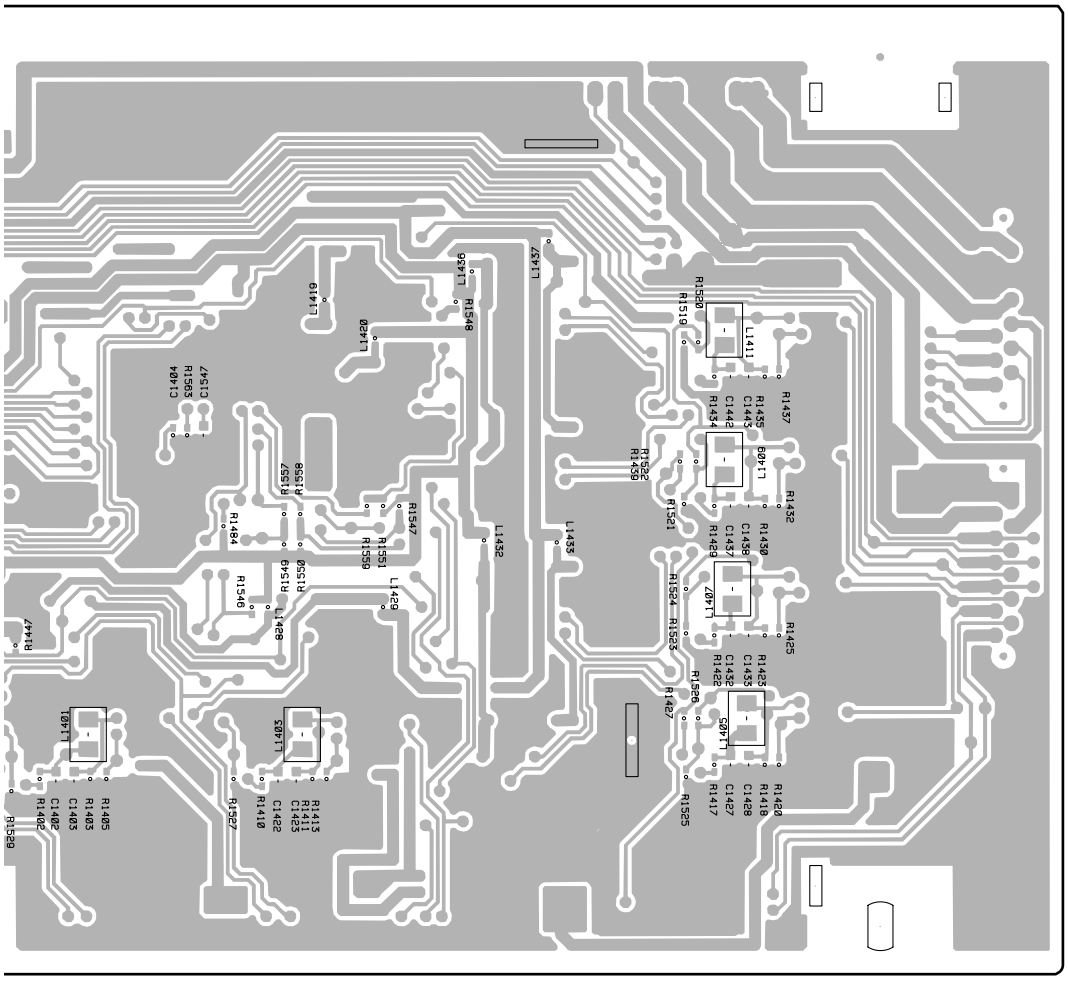
IC1402 IC1409
401 IC1420 Q1404
Q1403 IC1410
IC1407
IC1413 IC1421
Q1401
IC1411
IC1412
IC1651
IC1653
IC1655
IC1652
IC1654
Q1651
Q1652
IC1656

DIGITAL CONV. ASSY

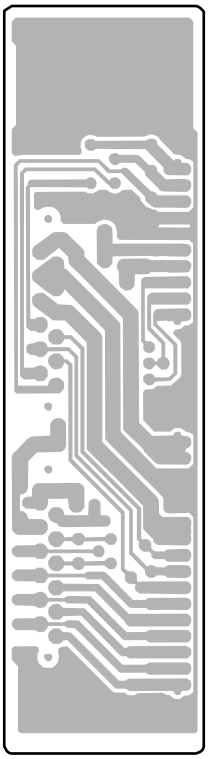


SIDE B

J
CONNECTOR ASSY



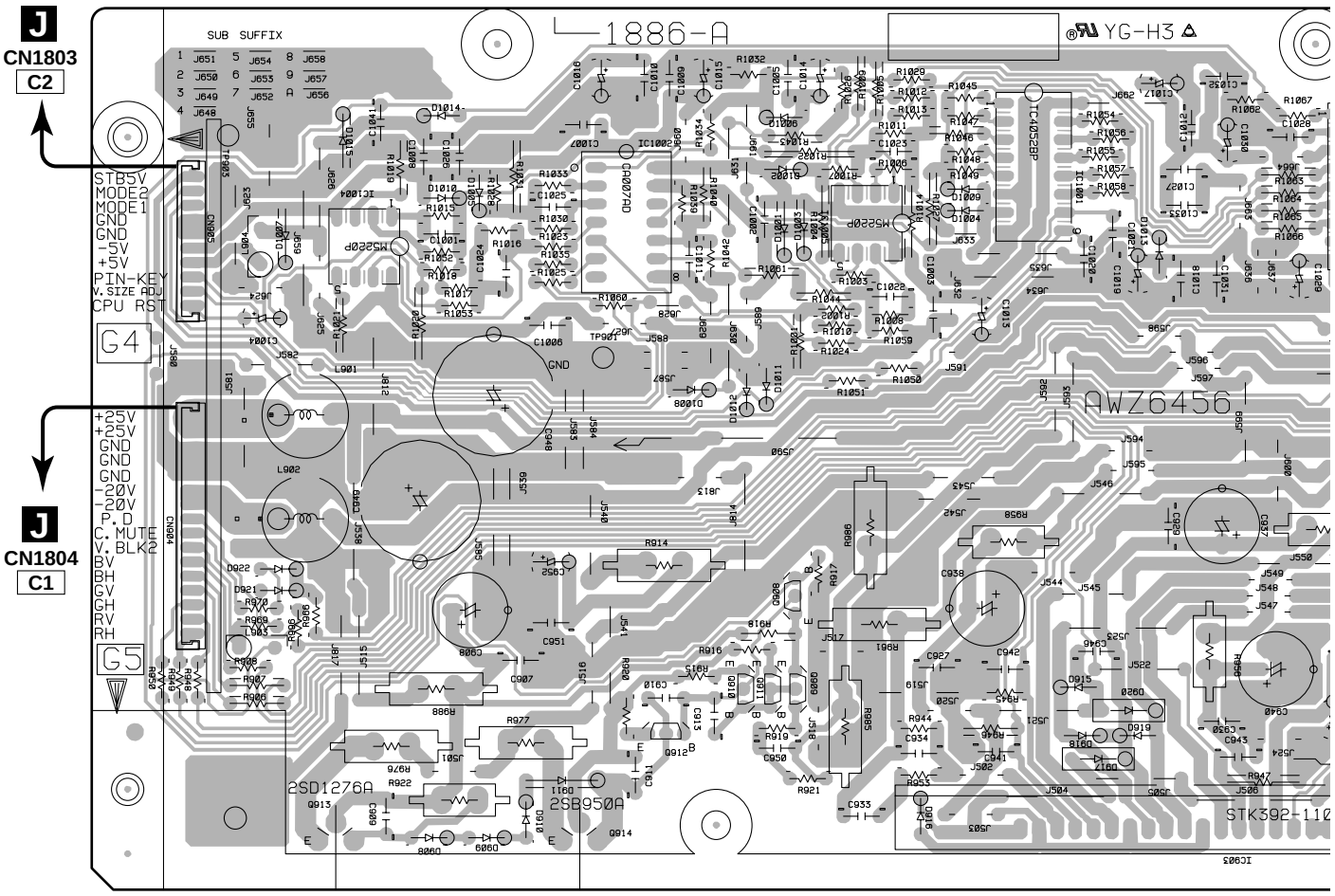
(ANP1945–B)



(ANP1945–B)

4.6 CONV. AMP ASSY

K CONV. AMP ASSY



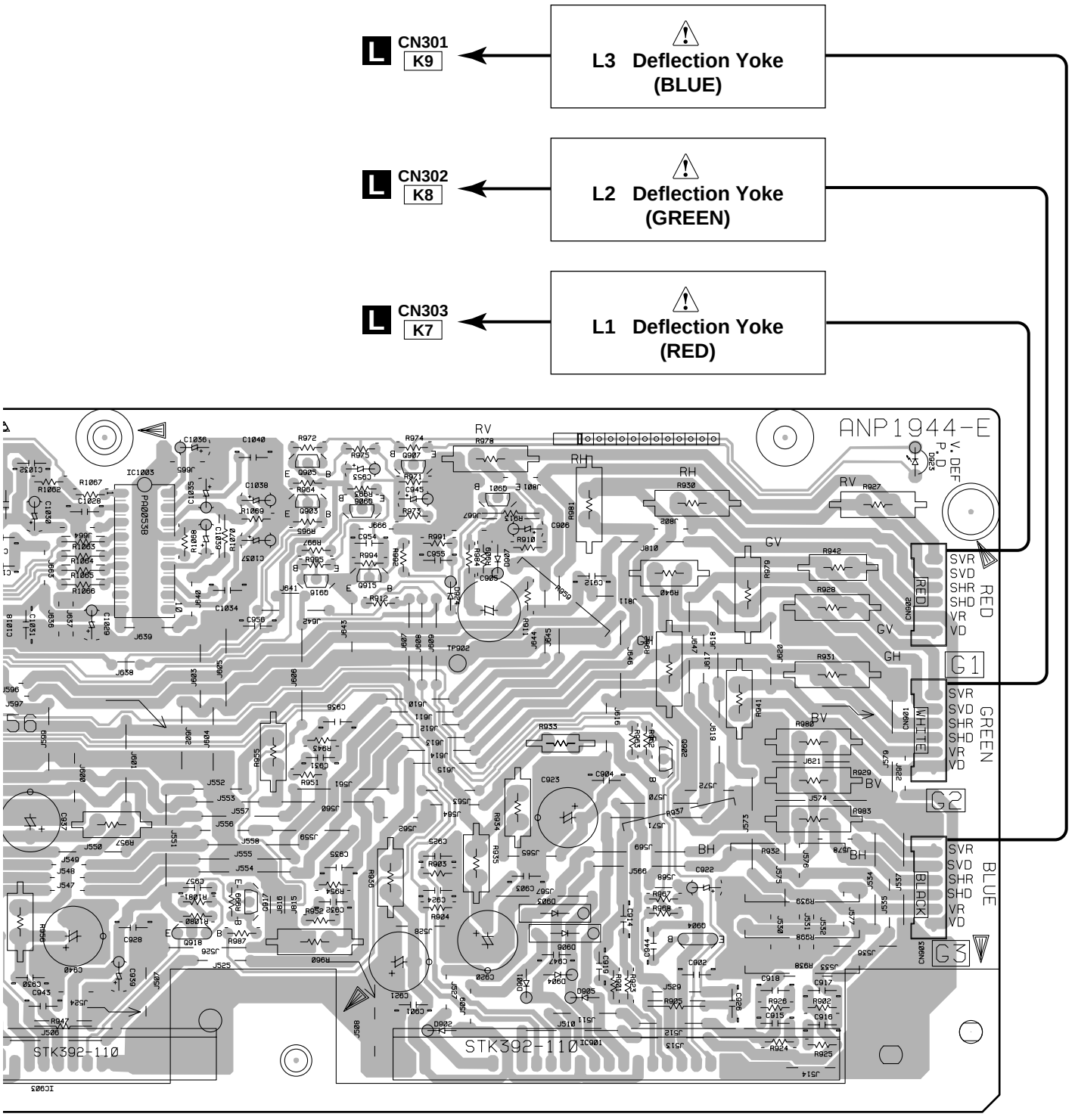
IC1004 IC1002 IC1005 IC1001

Q908

Q912 Q909–Q911

Q913 Q914

SIDE A

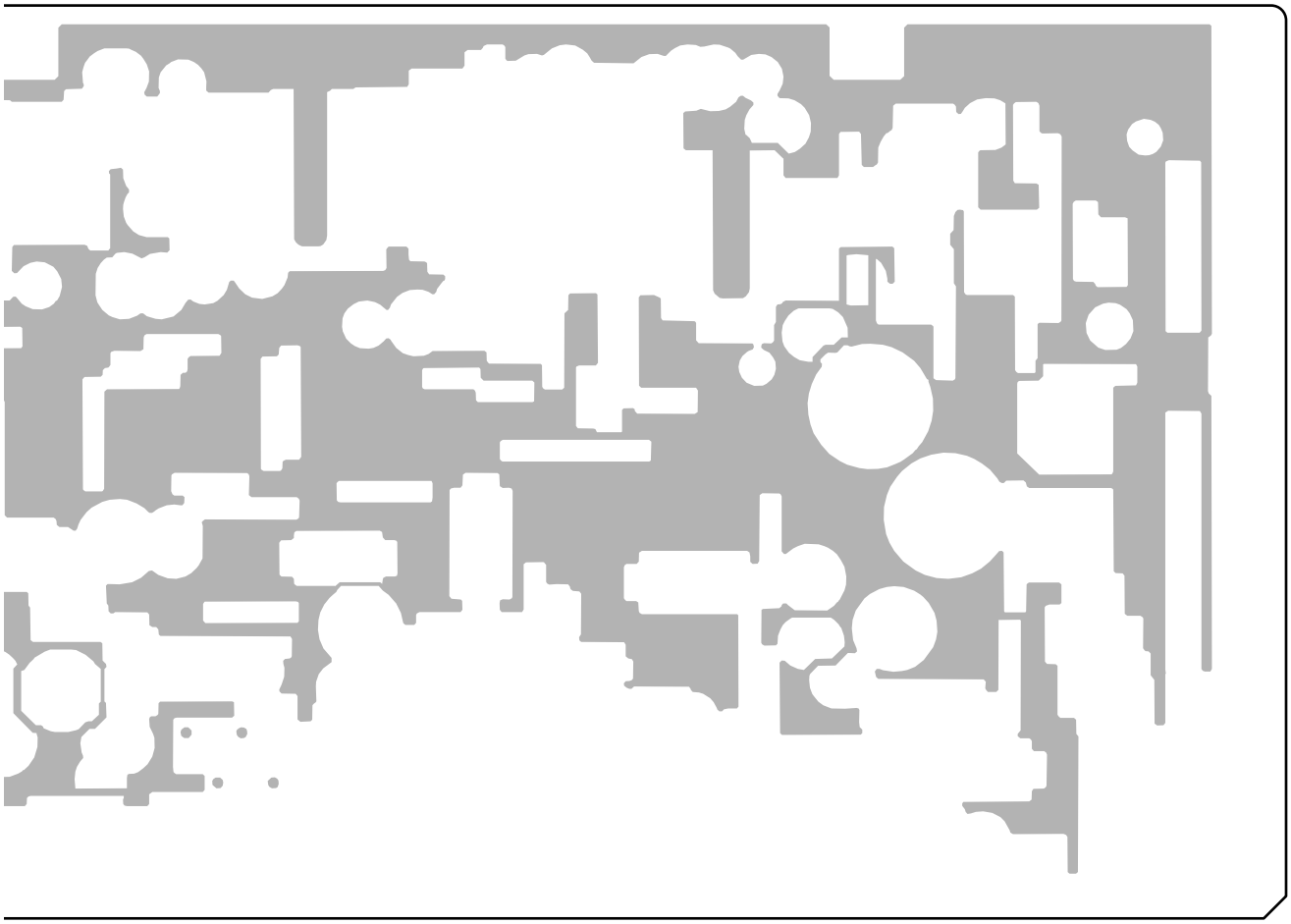


(ANP1944–E)

IC1003 Q903 Q905 Q916 Q906 Q907 Q915 Q901 Q902 Q904 Q918 Q917

K CONV. AMP ASSY

SIDE B

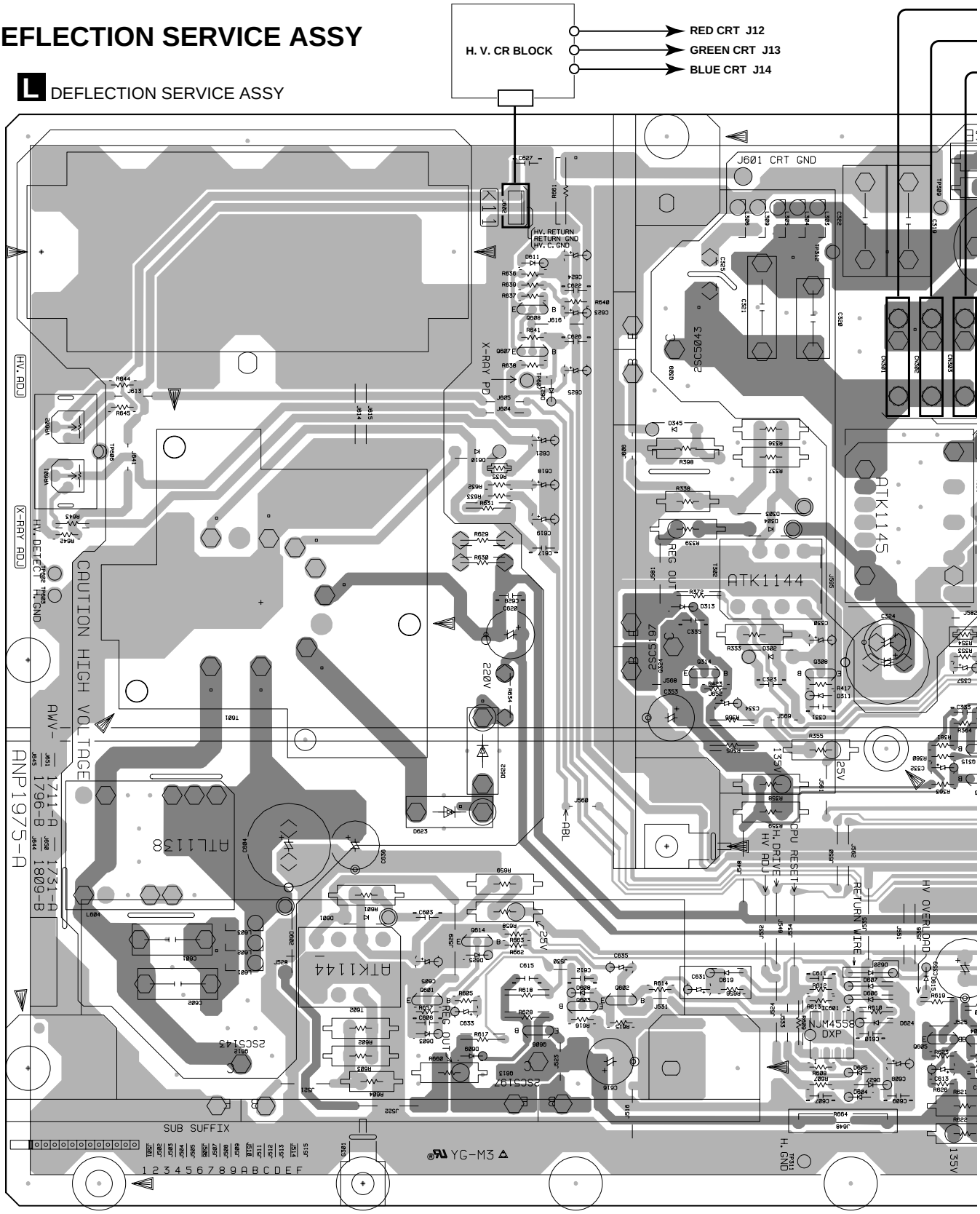


(ANP1944–E)

L-a

4.7 DEFLECTION SERVICE ASSY

L DEFLECTION SERVICE ASSY



: mark shows a high voltage generation point.

VR601 VR602

Q607 Q608 Q309

Q324 Q314 Q308

Q601 Q614

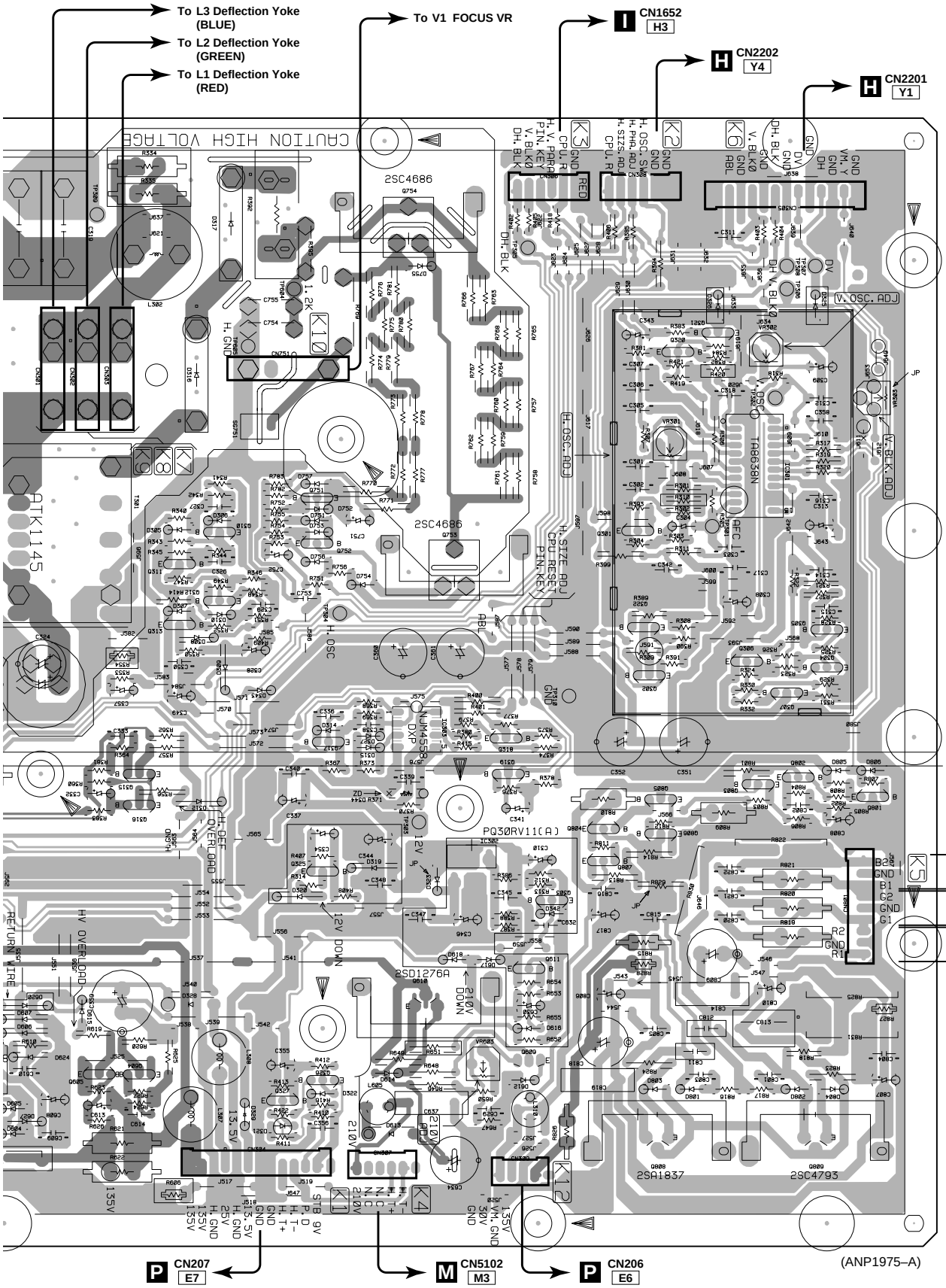
Q606 Q603 Q602 IC601 Q605

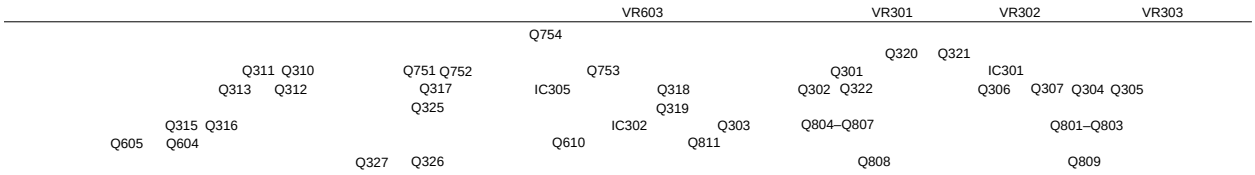
Q613

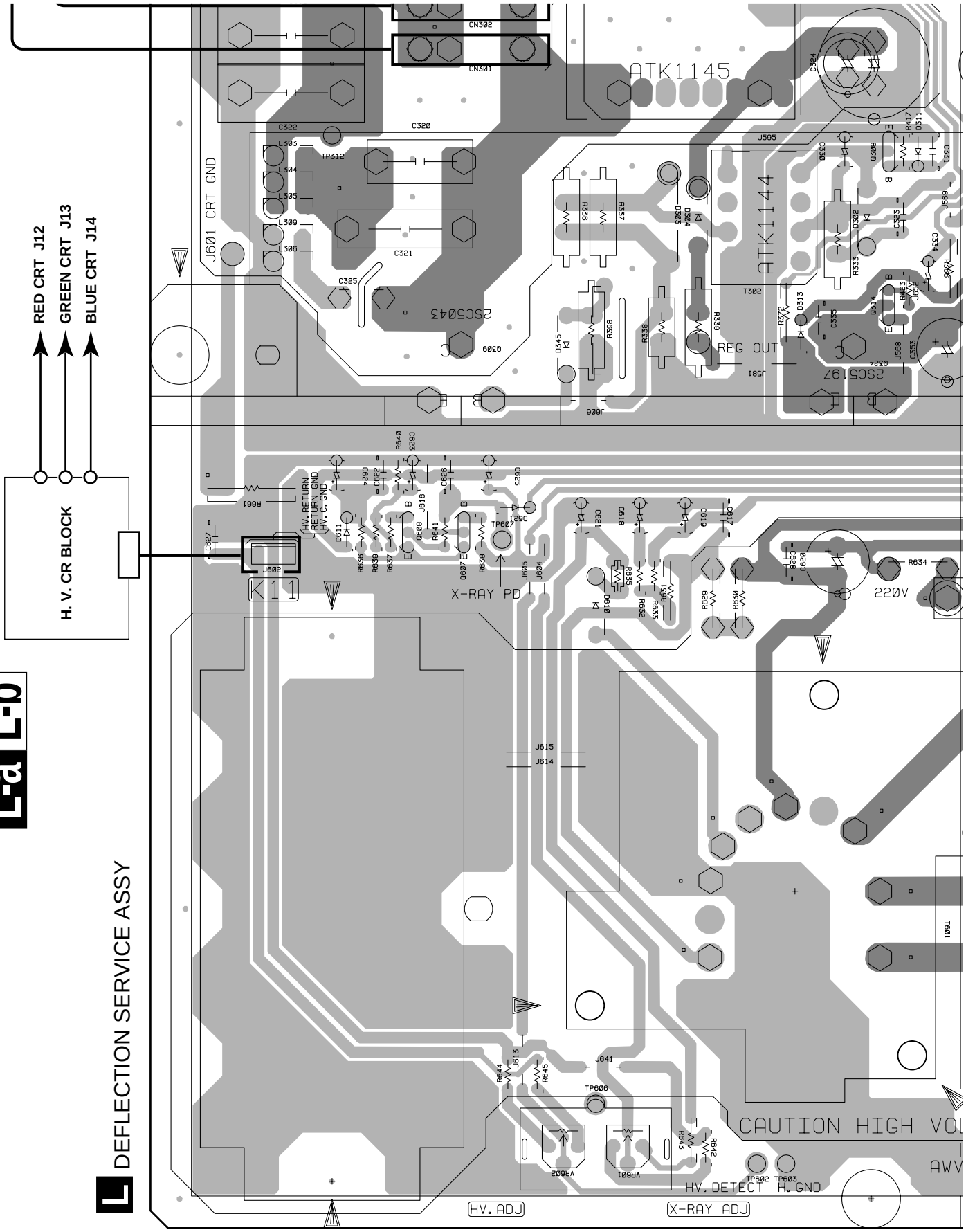
Q612

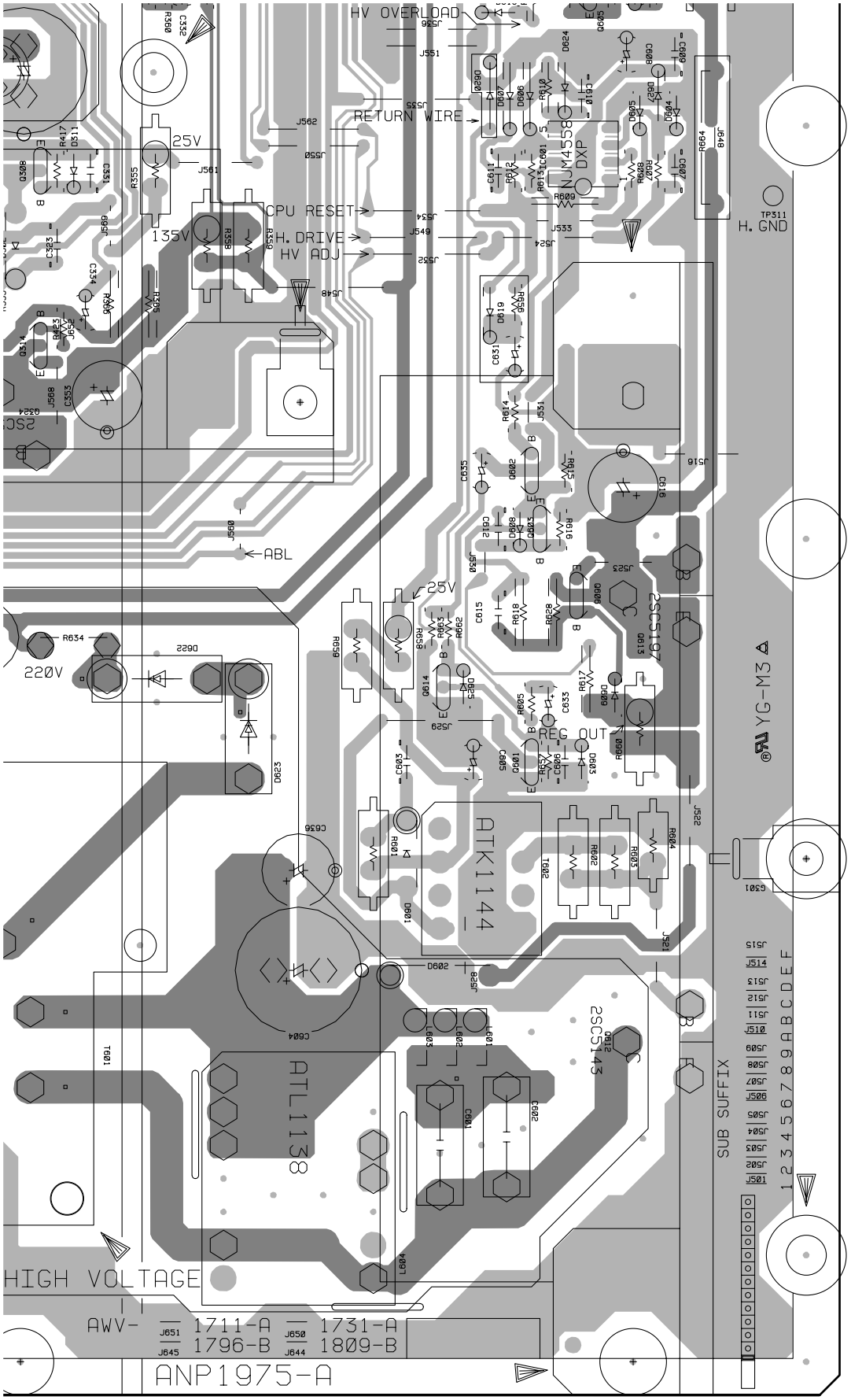
SIDE A

L-b


To L3 Deflection Yoke (BLUE)
To L2 Deflection Yoke (GREEN)
To L1 Deflection Yoke (RED)
To V1 FOCUS VR
I CN1652 H3
H CN2202 Y4
H CN2201 Y1
O CN5207 P2
N CN5157 N2
M CN5106 M2
P CN207 E7
M CN5102 M3
P CN206 E6
(ANP1975–A)


VR603
VR301
VR302
VR303
Q754
Q320 Q321
Q311 Q310
Q313 Q312
Q751 Q752
Q317
Q325
Q753
IC305
Q318
Q319
Q301
Q302 Q322
IC301
Q306
Q307 Q304 Q305
Q315 Q316
Q605 Q604
IC302
Q303
Q610
Q811
Q804–Q807
Q801–Q803
Q327 Q326
Q808
Q809


RED CRT J12
GREEN CRT J13
BLUE CRT J14
H. V. CR BLOCK
L-a L-b
L DEFLECTION SERVICE ASSY
ATK1145
ATK1144
J601 CRT GND
2SC5043
2SC5197
REG OUT
X-RAY PD
220V
HV. RETURN
RETURN GND
HV. C. GND
K11
J602
HV. ADJ
X-RAY ADJ
HV. DETECT
H. GND
CAUTION HIGH VO



: mark shows a high voltage generation point.

VR601 VR602

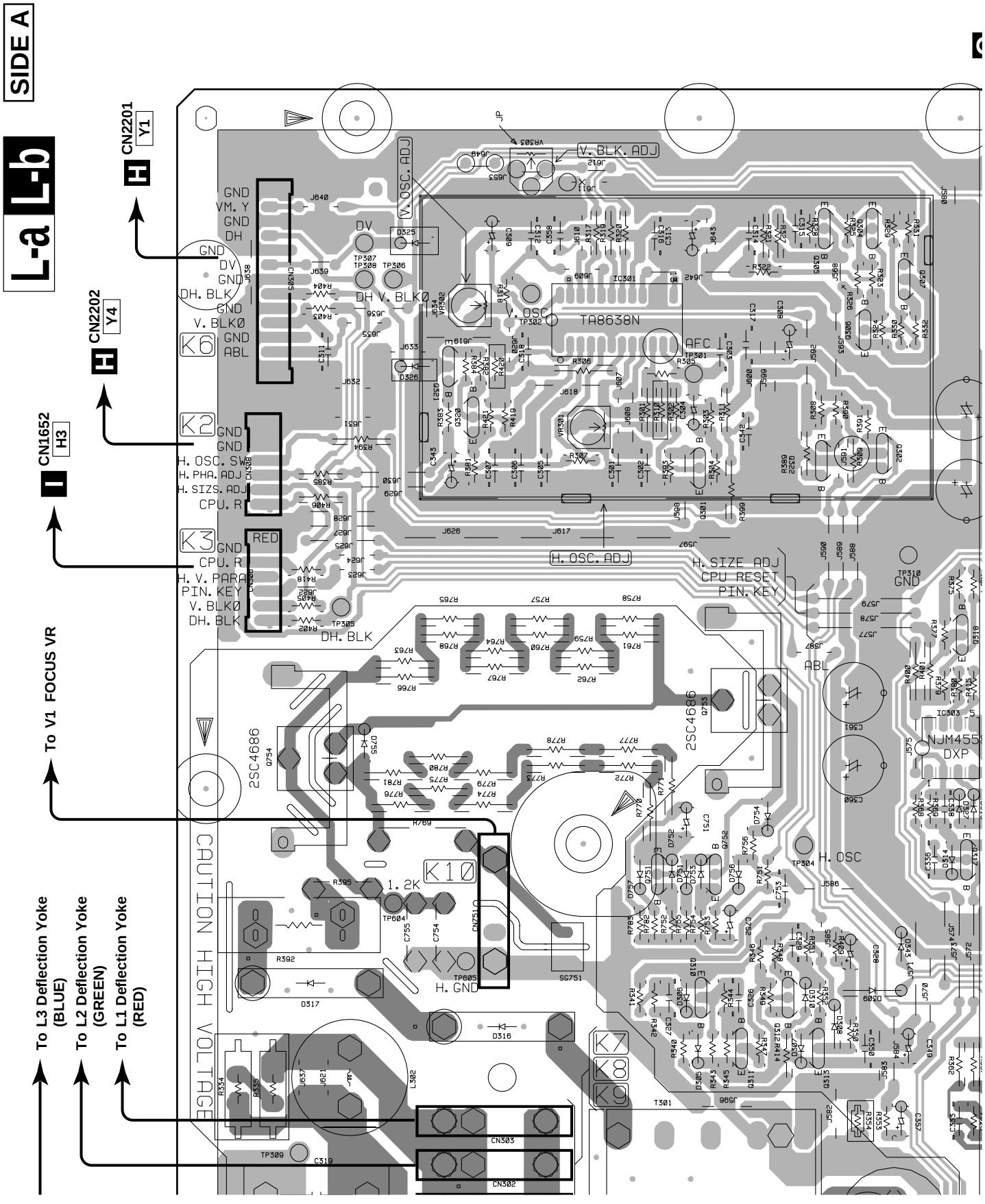
Q601 Q614 Q607 Q608 Q309 Q324 Q314 Q308 IC601

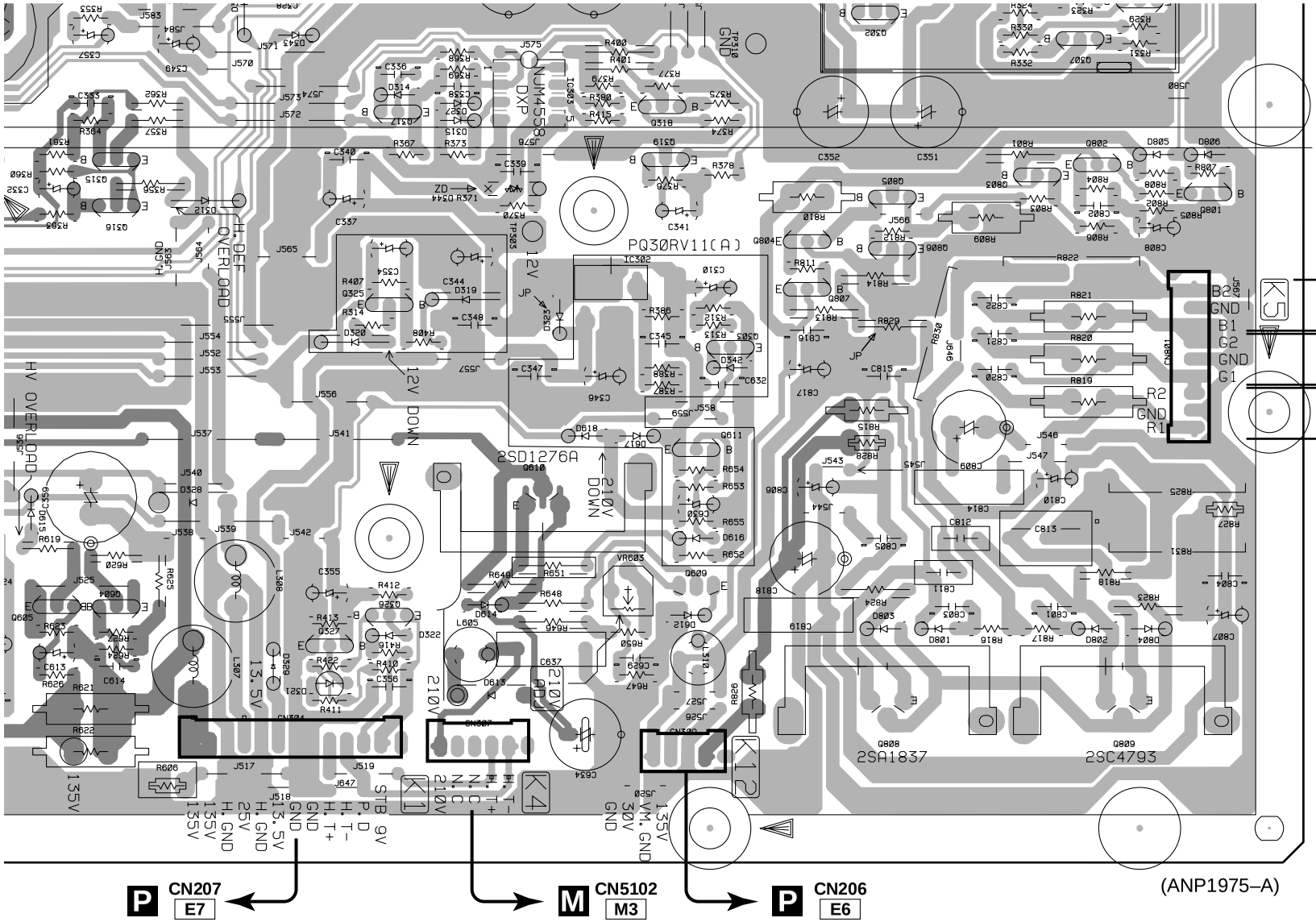
Q606 Q613 Q603 Q602

Q612

L-a L-b

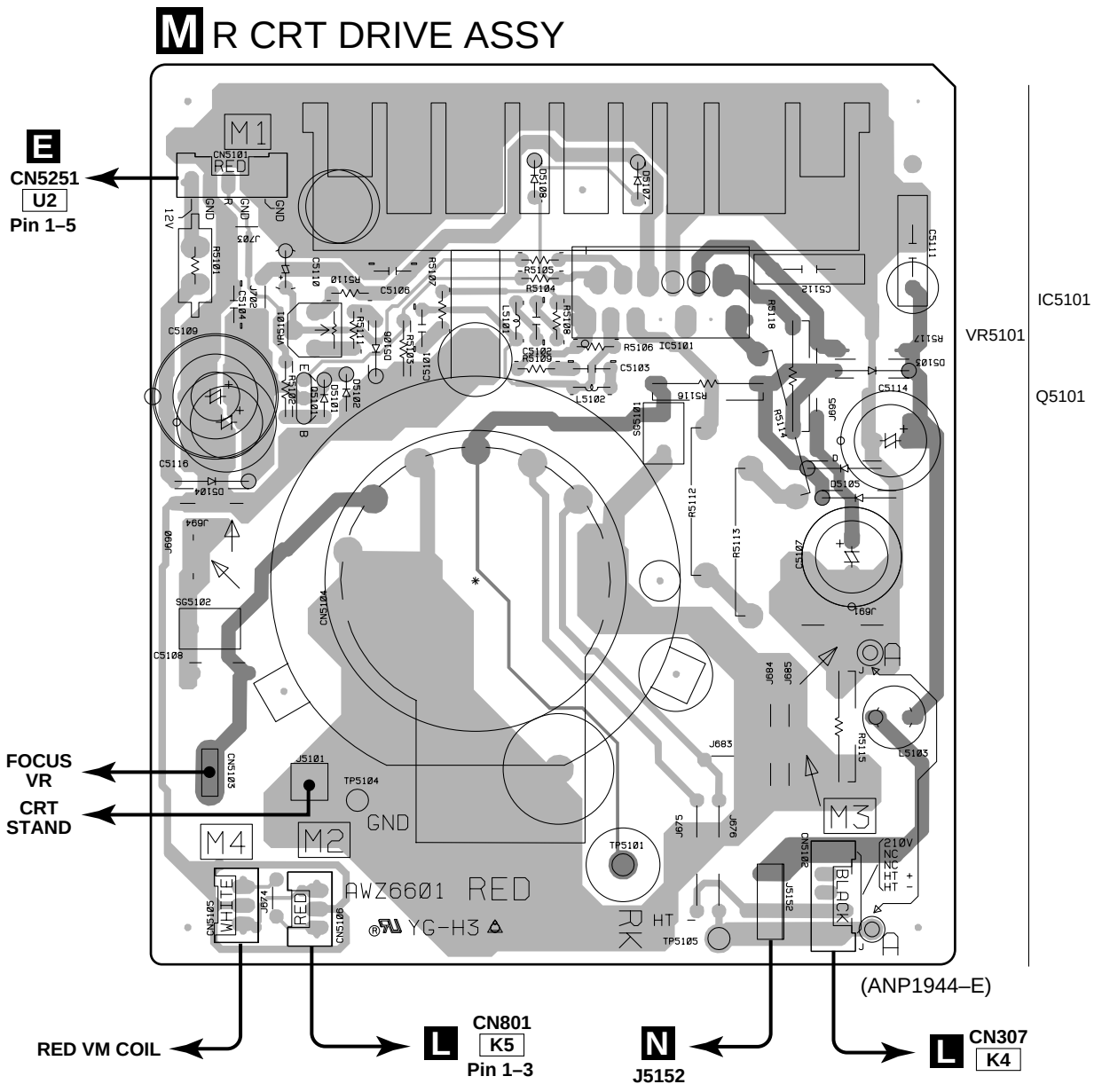
SIDE A


SIDE A
L-a L-b
CN2201
Y1
CN2202
Y4
CN1652
H3
To V1 FOCUS VR
To L3 Deflection Yoke (BLUE)
To L2 Deflection Yoke (GREEN)
To L1 Deflection Yoke (RED)
CAUTION HIGH VOLTAGE
V. BLK. ADJ
V. OSC. ADJ
H. OSC. ADJ
TA8638N
2SC4686
NJM4558DXP
H. SIZE ADJ
CPU RESET
PIN. KEY
DH. BLK
H. OSC
H. GND
1.2K


O
CN5207
P2
N
CN5157
N2
M
CN5106
M2
P
CN207
E7
M
CN5102
M3
P
CN206
E6
(ANP1975–A)
PQ30RV11(A)
NJM4558
DXP
2SD1276A
2SA1837
2SC4793
H. DEF OVERLOAD
HV OVERLOAD
12V DOWN
210V DOWN
210V
135V
13.5V
9V
30V
VR603
VR301
VR302
VR303
Q754
Q320
Q321
Q311
Q310
Q313
Q312
Q751
Q752
Q317
Q325
Q753
IC305
Q318
Q319
Q301
IC301
Q302
Q322
Q306
Q307
Q304
Q305
Q315
Q316
Q605
Q604
IC302
Q303
Q610
Q811
Q804–Q807
Q801–Q803
Q327
Q326
Q808
Q809

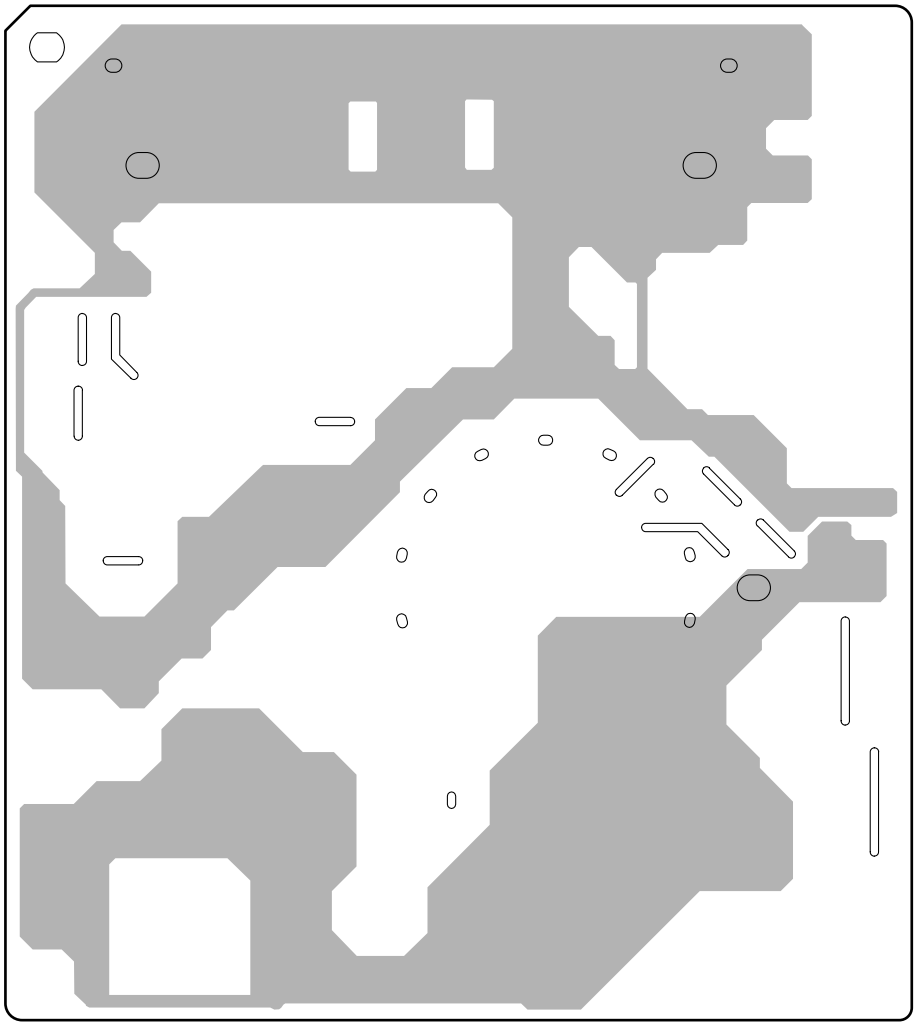
L-a L-b

4.8 R CRT DRIVE ASSY



SIDE A

M R CRT DRIVE ASSY

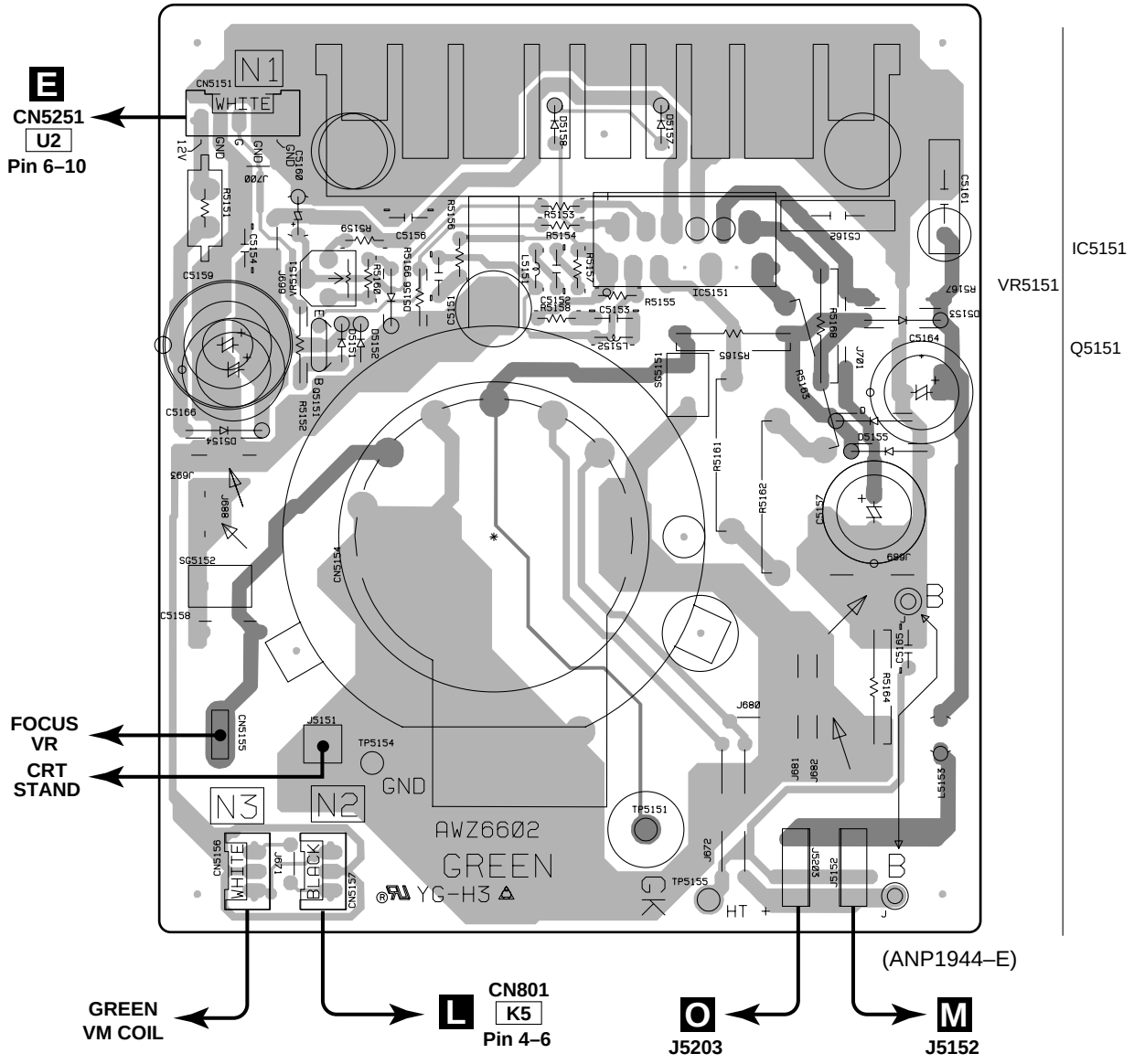


(ANP1944–E)

SIDE B

4.9 G CRT DRIVE ASSY

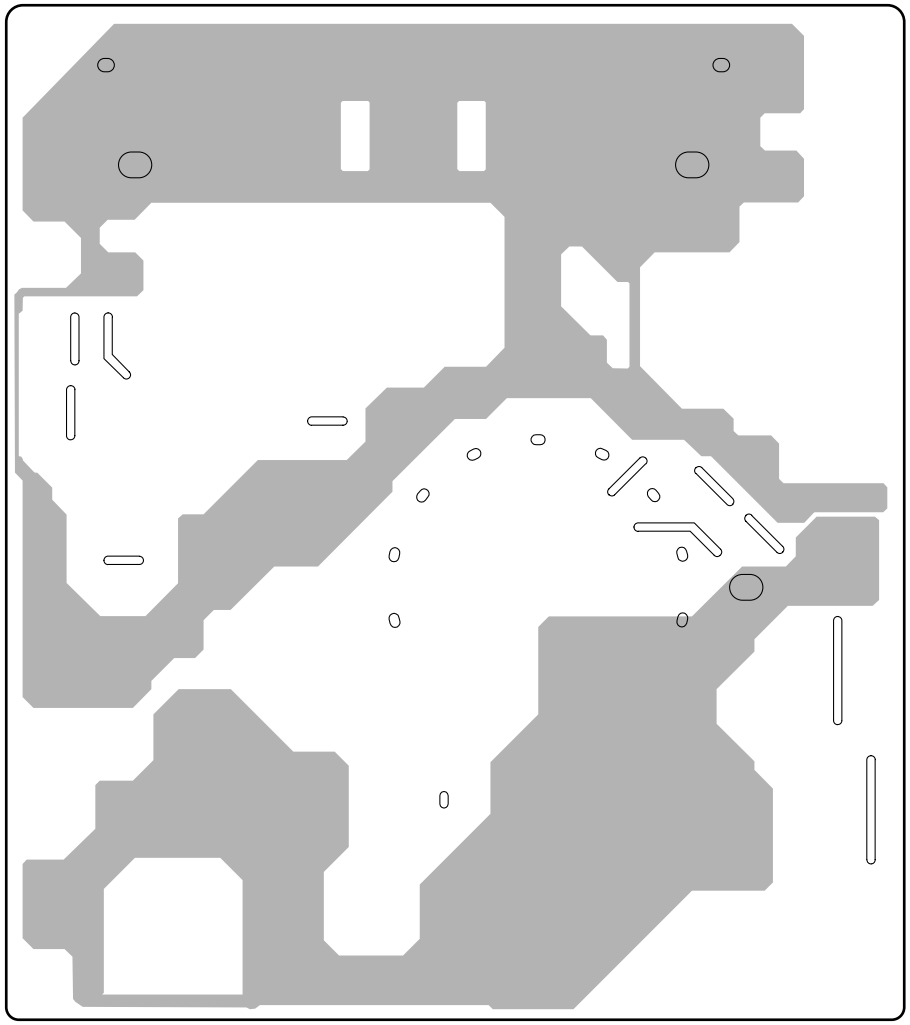
N G CRT DRIVE ASSY



: mark shows a high voltage generation point.

SIDE A

N G CRT DRIVE ASSY

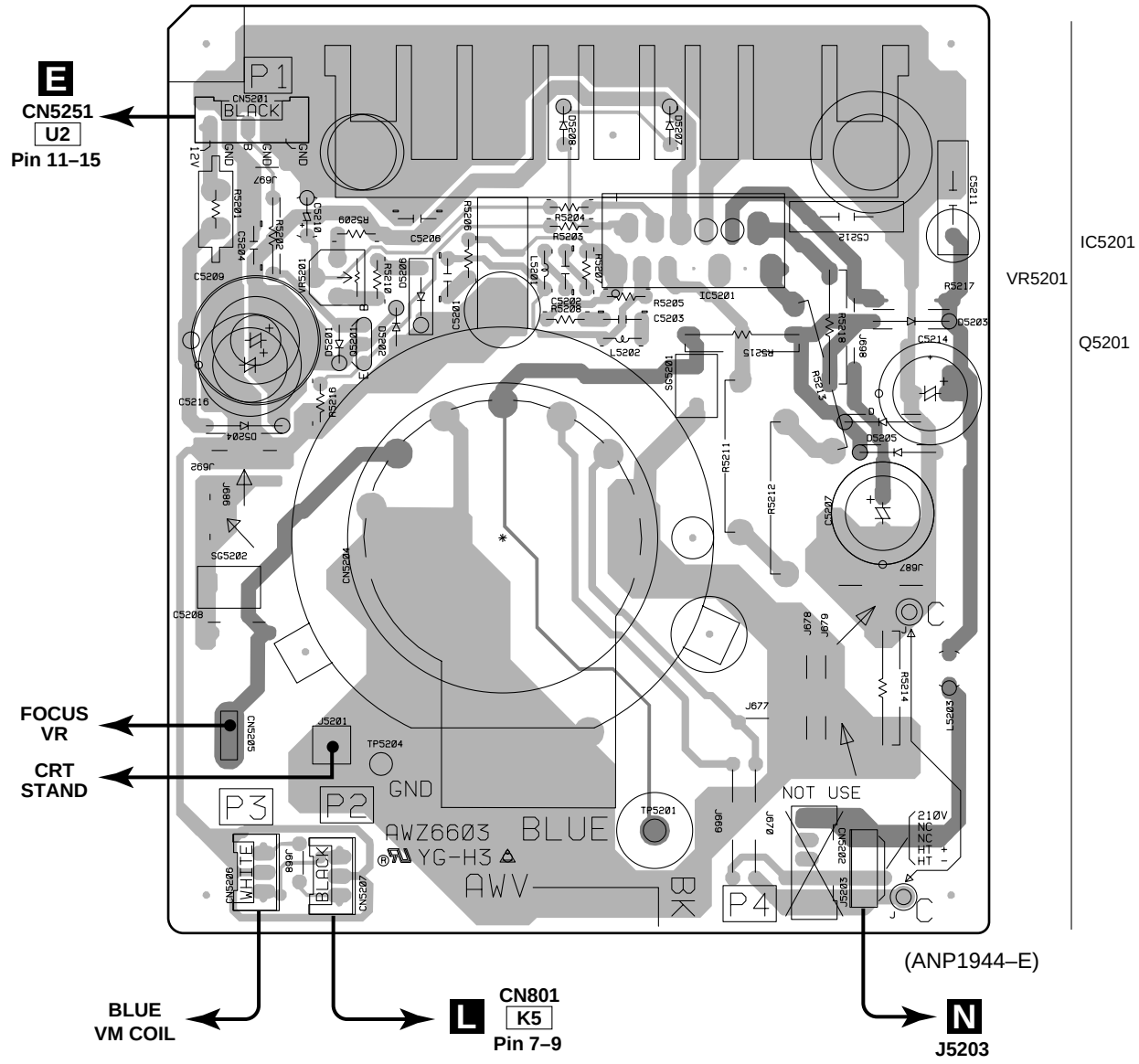


(ANP1944–E)

SIDE B

4.10 B CRT DRIVE ASSY

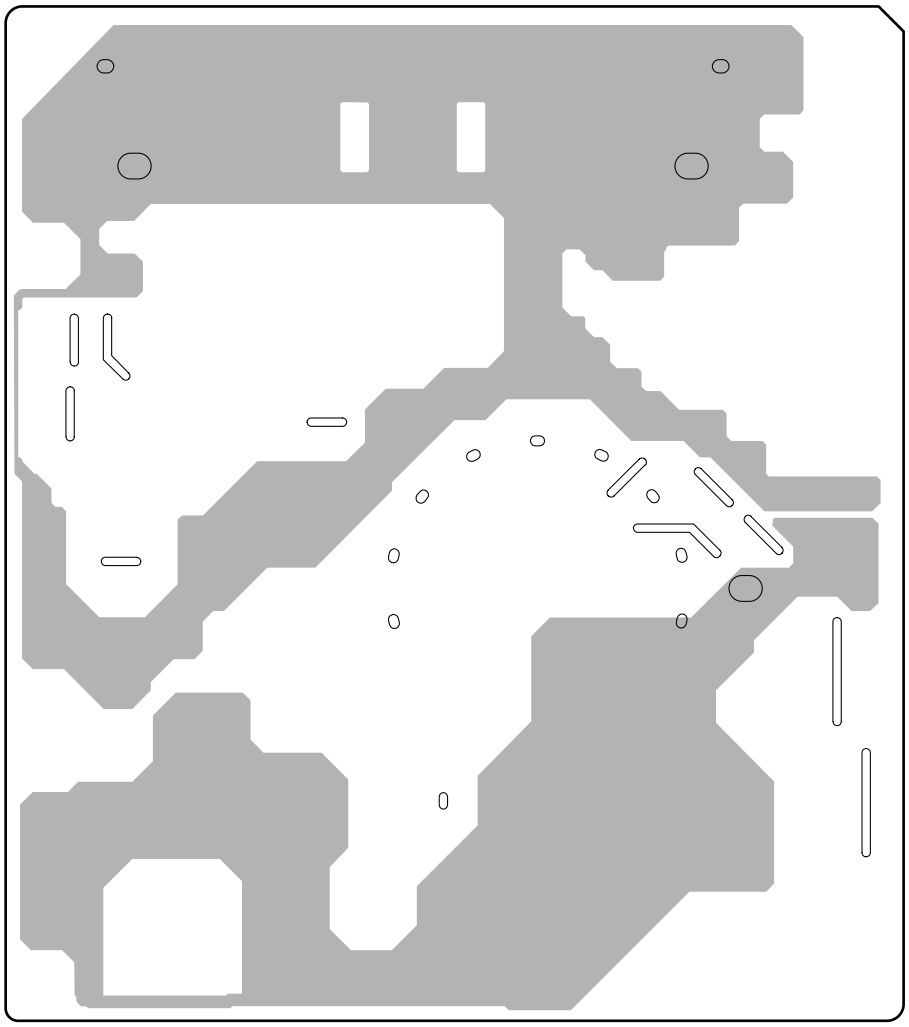
O B CRT DRIVE ASSY



: mark shows a high voltage generation point.

SIDE A

O B CRT DRIVE ASSY

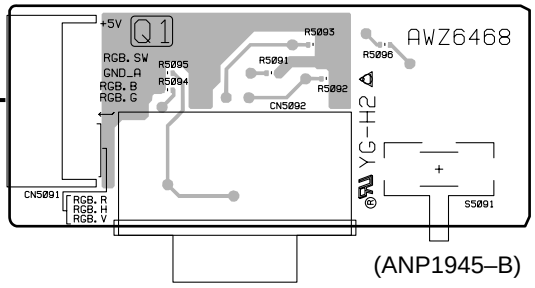


(ANP1944–E)

SIDE B

4.11 RGB SW, AUDIO, FRONT CONTROL and LED DPO ASSYS

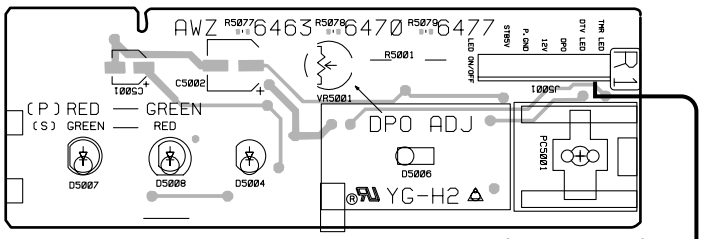
F RGB SW ASSY



E CN5606 U8

(ANP1945–B)

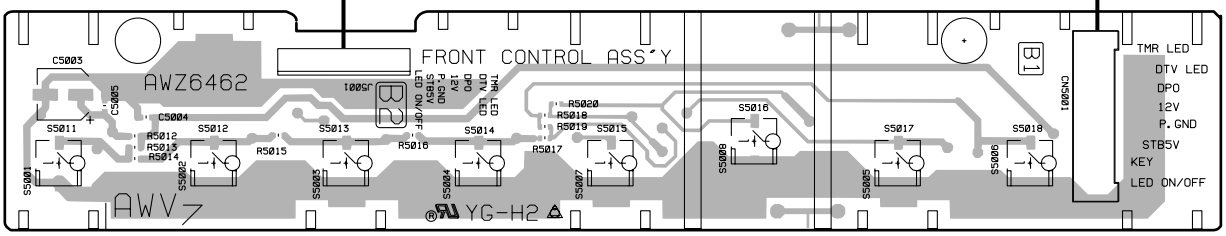
T LED DPO ASSY



(ANP1945–B)

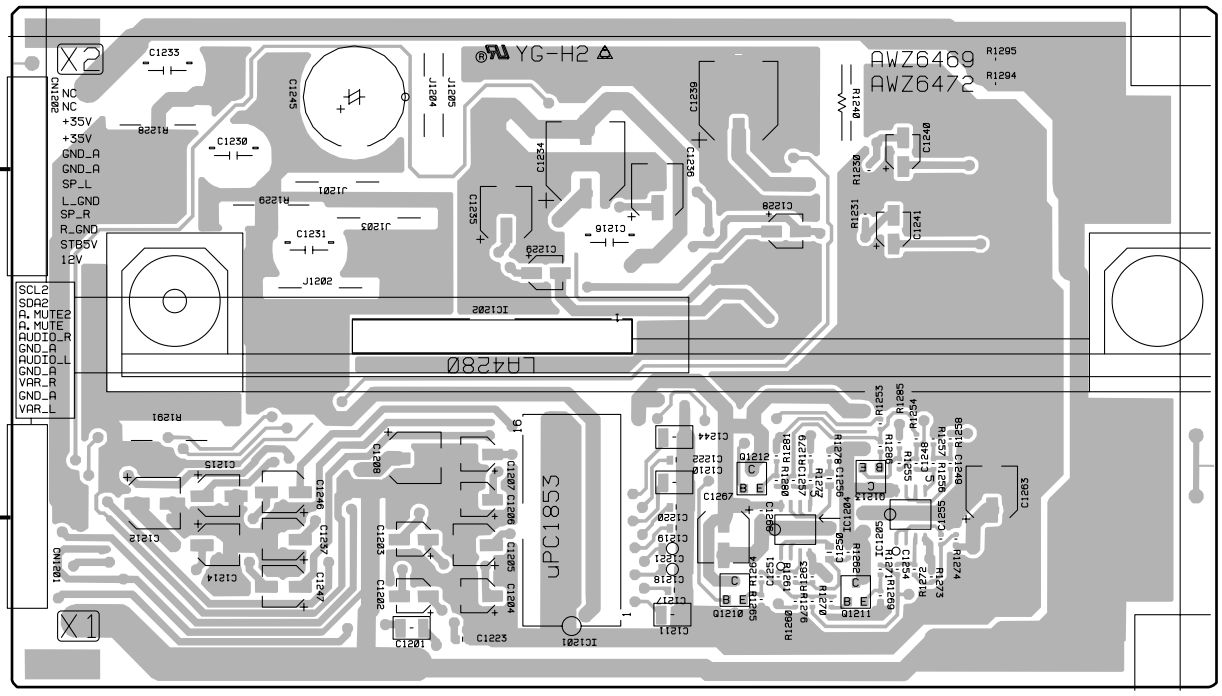
A CN2451 T6

S FRONT CONTROL ASSY



(ANP1945–B)

G AUDIO ASSY



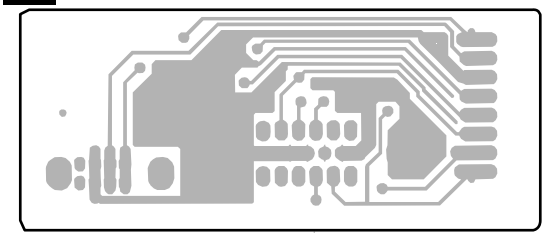
E CN5609 U4

E CN5607 U3

(ANP1945–B)

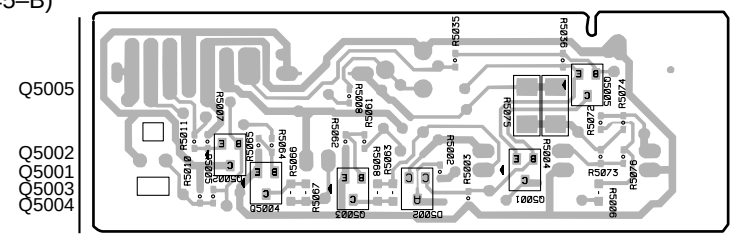
SIDE A

F RGB SW ASSY



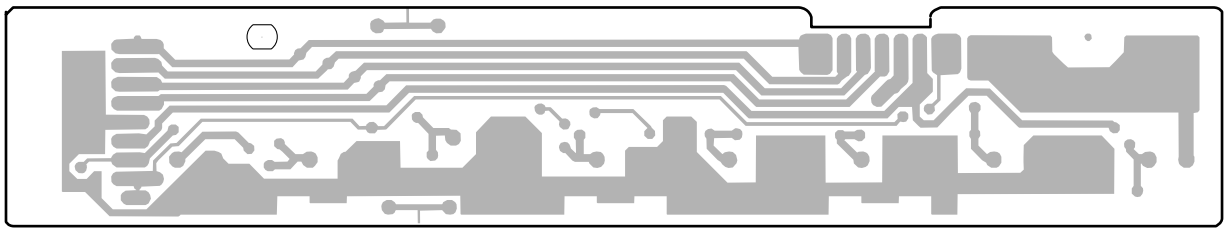
(ANP1945–B)

T LED DPO ASSY



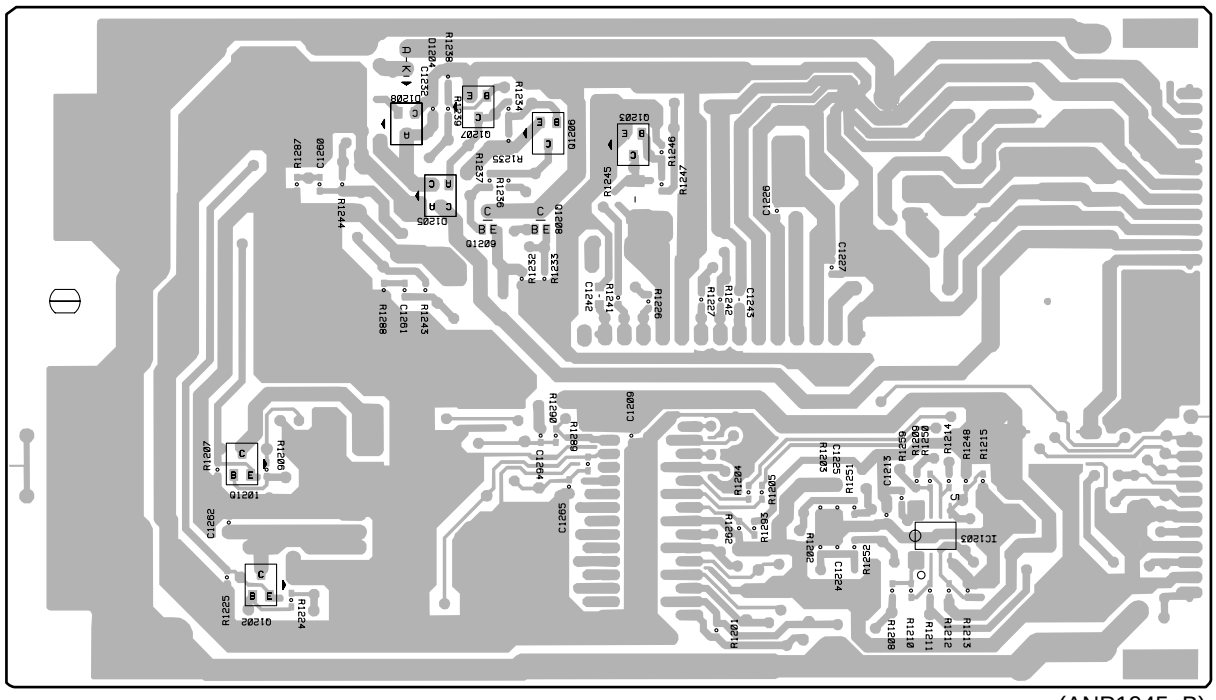
(ANP1945–B)

S FRONT CONTROL ASSY



(ANP1945–B)

G AUDIO ASSY



(ANP1945–B)

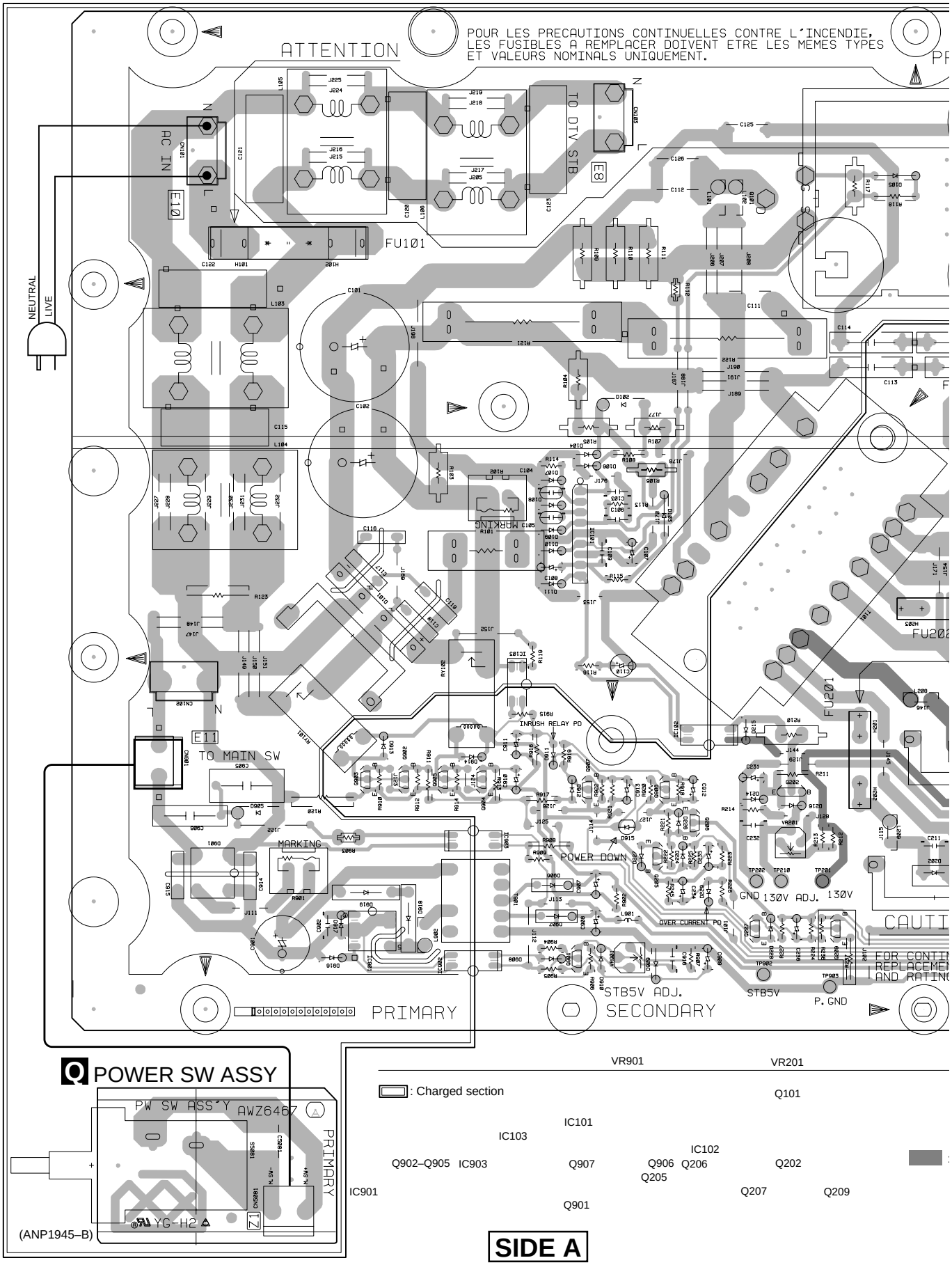
Q1201
Q1202

Q1207 Q1206 Q1203
Q1209 Q1208

IC1203

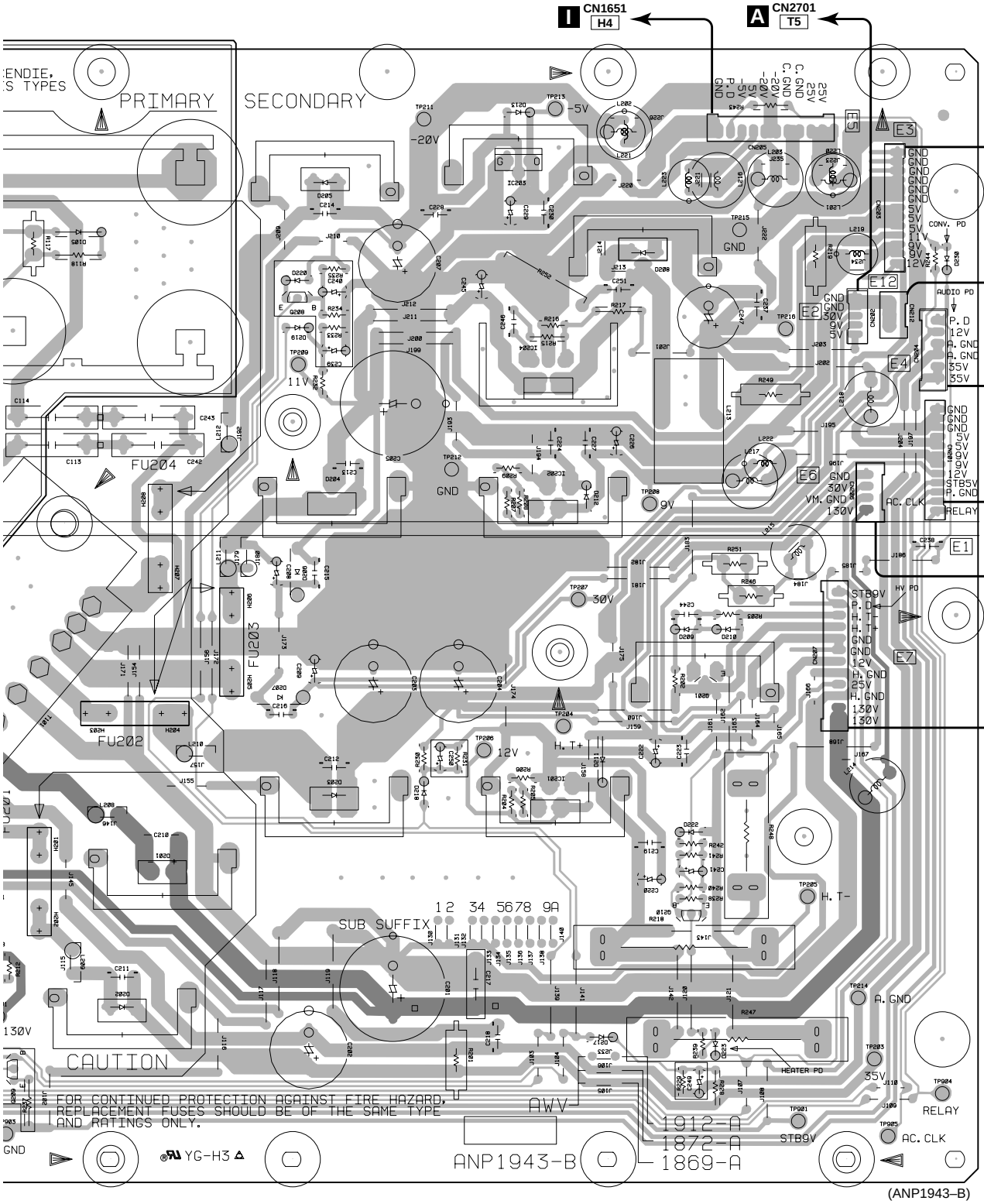
SIDE B

P POWER SUPPLY ASSY



Q POWER SW ASSY

SIDE A



(ANP1943–B)

IC203

Q208

IC204

IC202

IC201

Q201

: mark shows a high voltage generation point (excepting the Charged section).

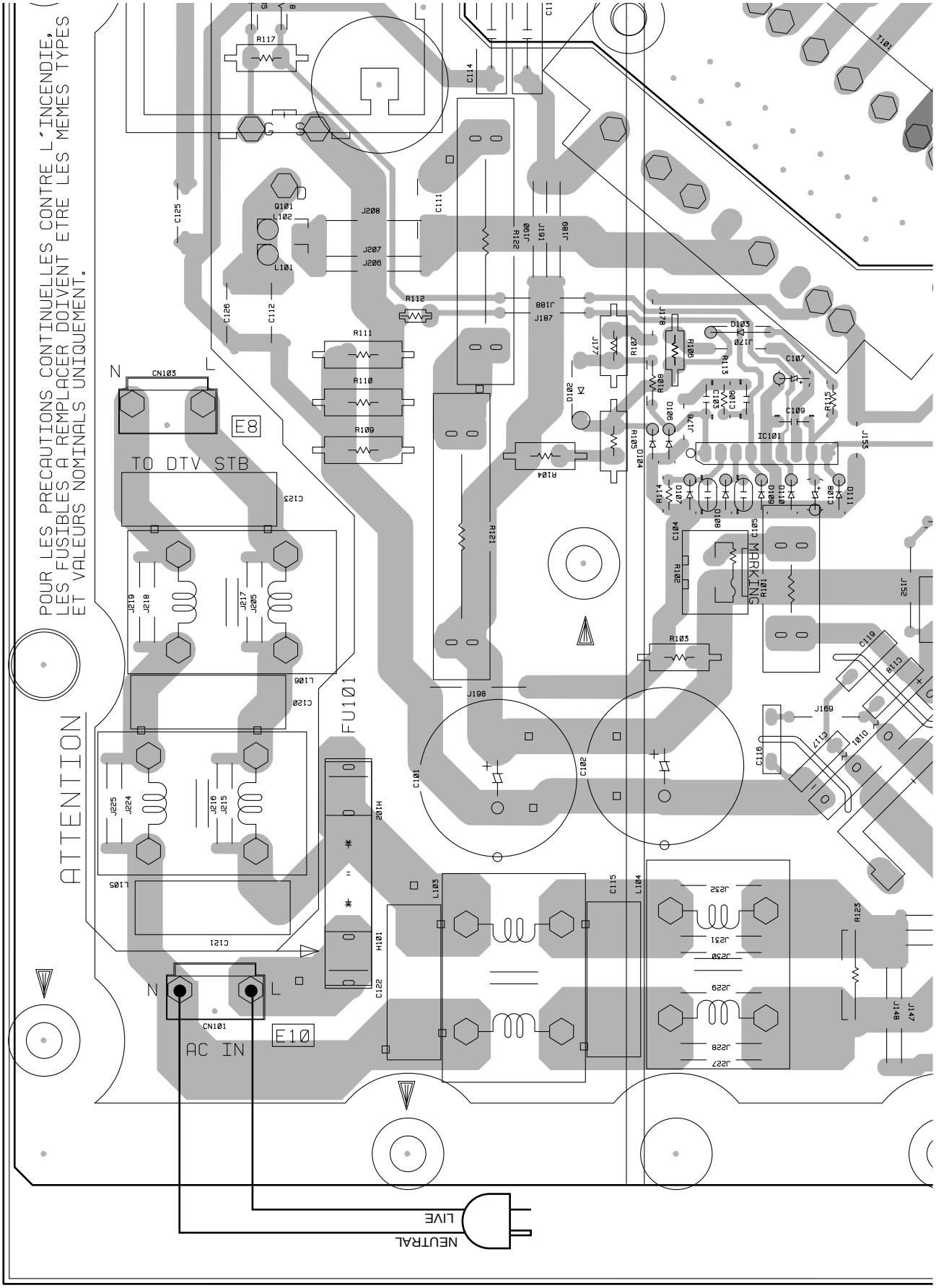
Q210

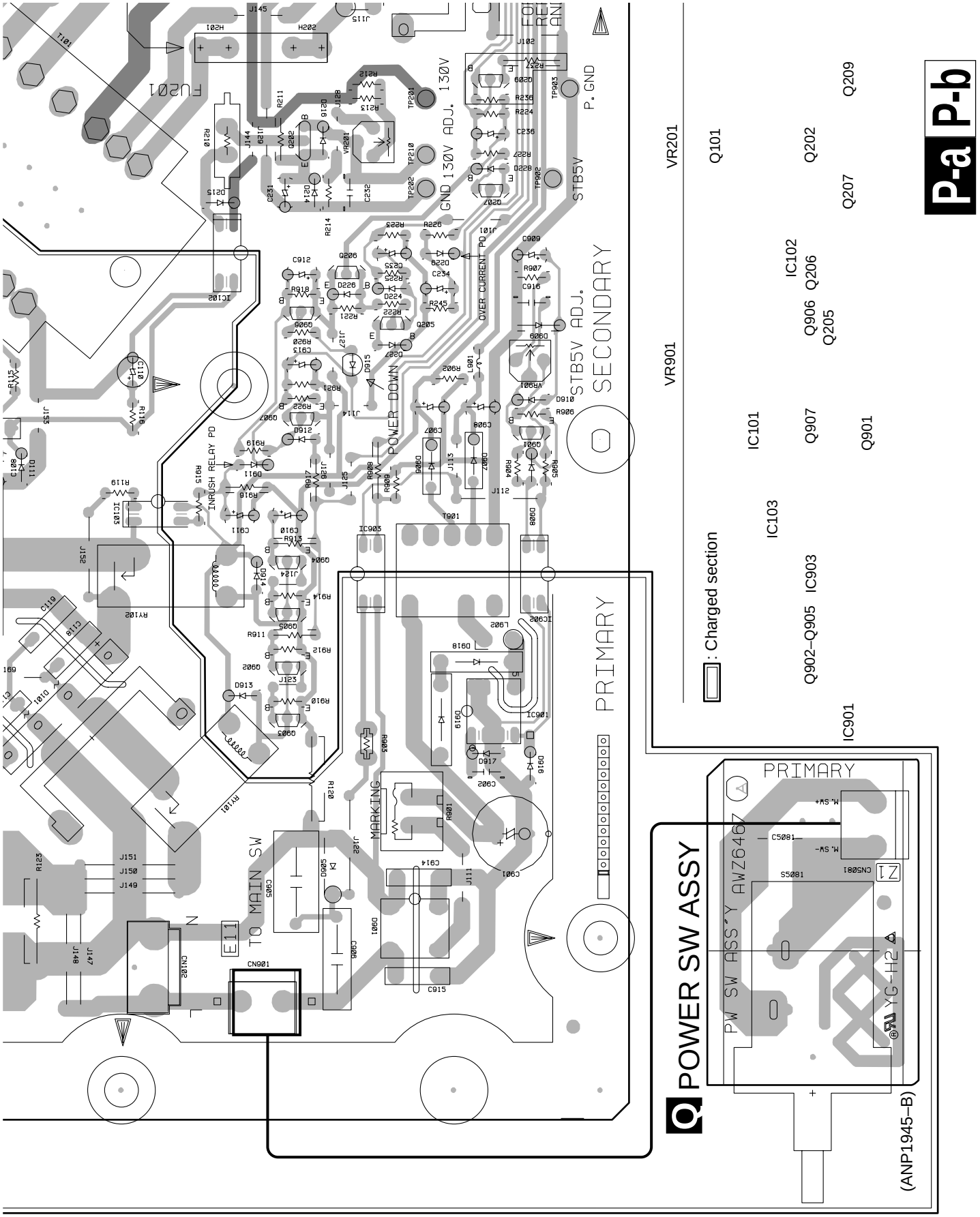
Q209

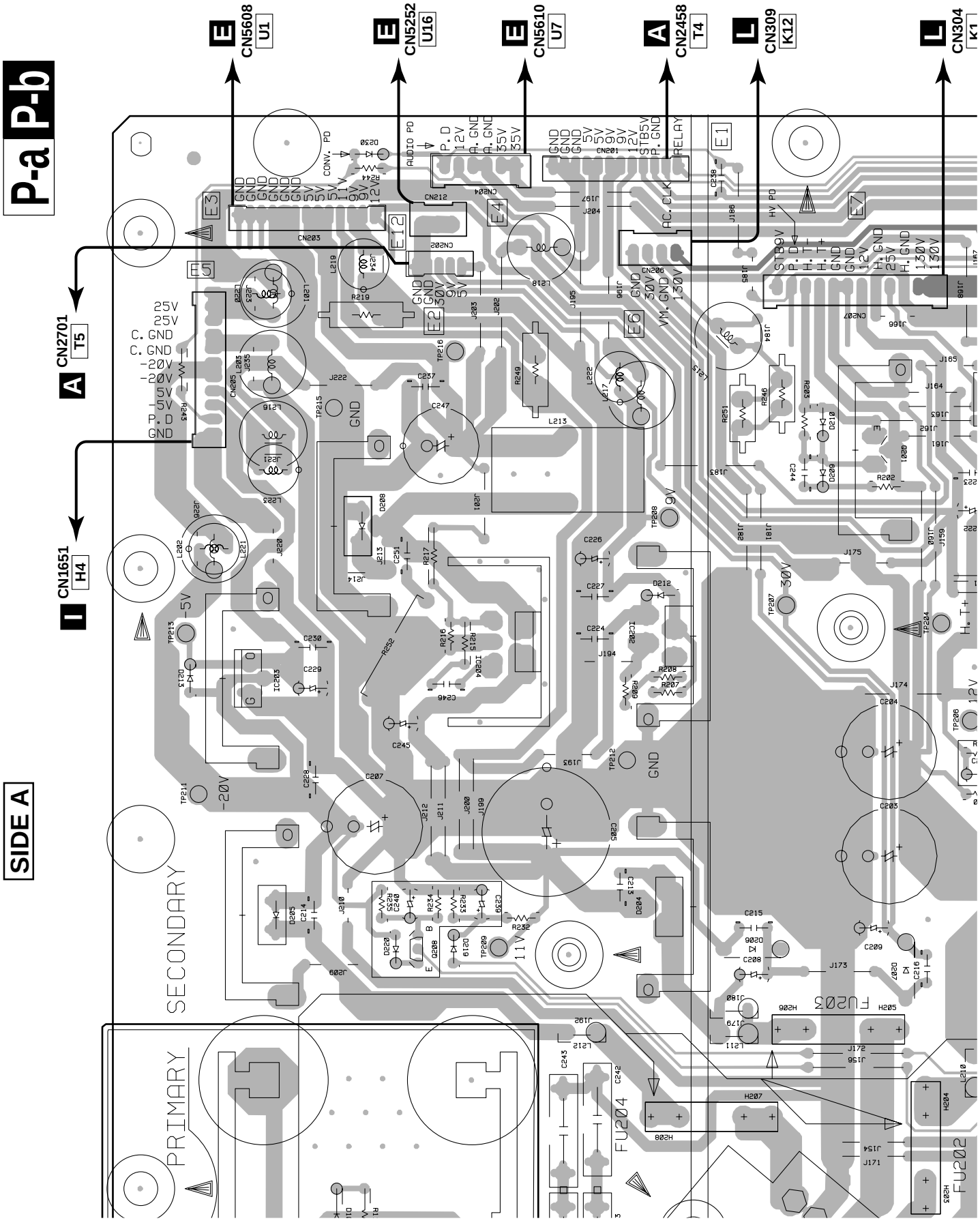
P-a P-b

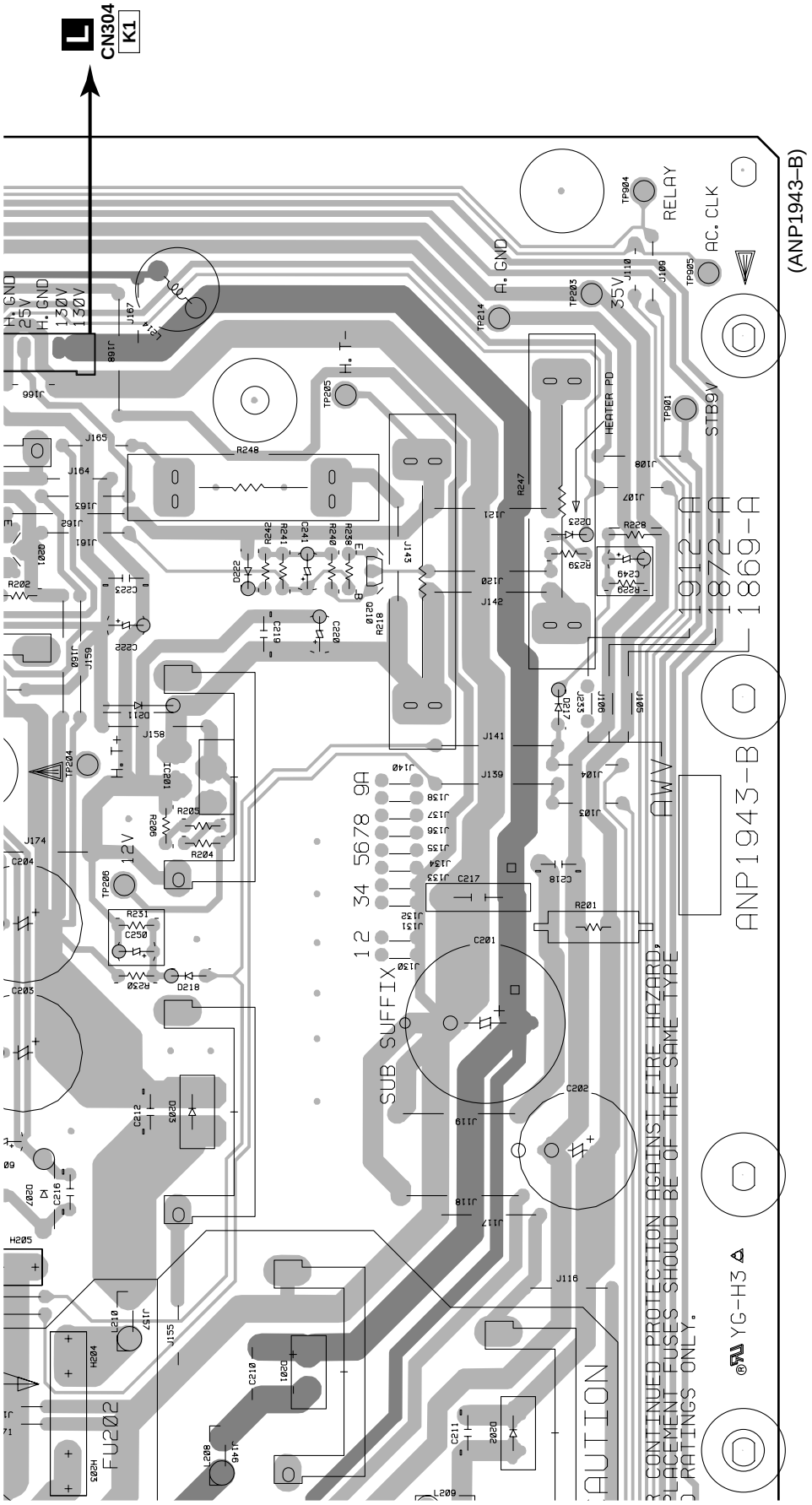
P POWER SUPPLY ASSY

SIDE A




P-a P-b
VR201
Q101
Q202
Q209
Q207
IC102
Q206
Q906
Q205
VR901
IC101
Q907
Q901
IC103
Q902–Q905
IC903
IC901
: Charged section
SECONDARY
PRIMARY
STBSV ADJ.
GND 130V ADJ.
P.GND
STBSV
OVER CURRENT PD
POWER DOWN
INRUSH RELAY PD
MARKING
TO MAIN SW
POWER SW ASSY
PW SW ASS'Y AWZ6467
PRIMARY
M.SW+
M.SW-
CN5081
S5081
YG-H2
(ANP1945–B)


P-a
P-b
SIDE A
E CN5608 U1
E CN5252 U16
E CN5610 U7
A CN2458 T4
L CN309 K12
L CN304 K1
A CN2701 T5
I CN1651 H4
PRIMARY
SECONDARY
FU203
FU204
FU202


L
CN304
K1
(ANP1943–B)
IC203
IC204
IC202
IC201
Q208
Q201
Q210
: mark shows a high voltage generation point (excepting the Charged section).

P-a P-b

5. PCB PARTS LIST

NOTES:
- *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *When ordering resistors, first convert resistance values into code form as shown in the following examples.*

  Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

  560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
  47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
  0.5 Ω → R50 ..... RN2H R 5 0 K
  1 Ω → 1R0 ..... RS1P 1 R 0 K

  Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

  5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F
- *Parts marked by ☆ are important parts which relate in X-rays radiation. If any of these parts need to be replaced, always replace with specified parts.*
- *Parts marked by × are important parts which relate in X-rays radiation. If a failure occurs in any of these parts, replace the printed circuit board assembly where the relevant part has already been adjusted as a working component. Do not replace the actual part itself. If any part marked by × is replaced, there is danger of being exposed to X-rays.*

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

AV I/O ASSY	AWV1919
BNC ASSY	AWV1920
VIDEO ASSY	AWV1916
SUB VIDEO SERVICE ASSY	AWV1922
DEFLECTION SERVICE ASSY	AWV1921
POWER SUPPLY ASSY	AWV1912
SIGNAL ASSY	AWV1917
├ RF SWITCH	AXF1088
├ TV FRONT END SYSTEM UNIT	AXF1102
└ TV FRONT END SYSTEM UNIT	AXF1103
AMP ASSY	AWV1914
├ CONV. AMP ASSY	AWZ6649
├ R CRT DRIVE ASSY	AWZ6601
├ G CRT DRIVE ASSY	AWZ6602
└ B CRT DRIVE ASSY	AWZ6603
DIGITAL CONV. ASSY	AWV1915
├ DIGITAL CONV. ASSY	AWZ6460
├ CONNECTOR ASSY	AWZ6461
├ AUDIO ASSY	AWZ6472
├ FRONT CONTROL ASSY	AWZ6462
├ LED DPO ASSY	AWZ6470
├ SR ASSY	AWZ6465
├ FRONT INPUT ASSY	AWZ6466
├ POWER SW ASSY	AWZ6467
└ RGB SW ASSY	AWZ6468

A SIGNAL ASSY

• TUNER 1 BLOCK

SEMICONDUCTORS

IC2701	PQ05DZ51
IC2702	PQ09DZ11
Q2701,Q2710,Q2720	2SA1162
Q2702-Q2705,Q2707,Q2711,Q2716	2SC2712
Q2719	2SC2712
D2701-D2703,D2706,D2707,D2710	1SS226
D2705	1SS352
D2704	UDZ30B

COILS

L2707-L2710	QTL1013

CAPACITORS

C2701,C2722	CCSRCH470J50
C2703,C2709,C2713,C2716,C2724	CEAT100M50
C2729,C2741	CEAT100M50
C2744	CEAT101M10
C2710,C2720,C2730,C2739	CEAT471M10
C2708,C2721,C2728	CEAT471M6R3
C2702,C2704,C2723,C2725	CKSRYB102K50
C2706,C2707,C2711,C2712	CKSRYB103K50
C2717-C2719,C2727,C2731,C2732	CKSRYB103K50
C2737,C2742	CKSRYB103K50

RESISTORS

R2728	RD1/2MMF271J
Other Resistors	RS1/16S□□□J

OTHERS

2704,2705	PLUG CORD	ADE1171
J2703	10P HOUSING WIRE	ADX2496
J2701	3P HOUSING WIRE	ADX2567
CN2701	CONNECTOR 5-P	S5B-PH-SM3

• TUNER 2 BLOCK

SEMICONDUCTORS

IC2801	CXA2094Q
IC2802	MC14066BF
Q2804	2SA1162
Q2801-Q2803	2SC2712
D2801,D2802	1SS226

CAPACITORS

C2812 (33μF/50V)	ACH1128
C2814 (10μF/50V)	ACH1129
C2819,C2820	CCSRCH101J50
C2818	CEAT101M10
C2801,C2803,C2808,C2809,C2813	CEAT4R7M50

Mark	No.	Description	Part No.
	C2824,C2825		CEAT4R7M50
	C2804		CEHAQ100M50
	C2802,C2815		CEHAQ1R0M50
	C2806,C2807		CEHAQ4R7M50
	C2810		CFHSQ272J50
	C2811		CKSQYB473K50
	C2805,C2821-C2823		CKSRYB103K50
	C2816		CKSRYB123K50
	C2817		CKSRYB562K50

RESISTORS

	R2806	RS1/16S6202F
	Other Resistors	RS1/16S□□□J

• MAIN UCOM BLOCK

SEMICONDUCTORS

	IC2454	24LC32A(I)P
	IC2451	MC14066BF
	IC2452	PD5717A
	IC2453	PST9146N
	Q2452,Q2454	2SA1162
	Q2453,Q2455-Q2457,Q2459-Q2461	2SC2712
	Q2463,Q2464	2SC2712
	Q2451	2SC4213
	Q2458	2SJ461
	D2454,D2455,D2490	1SS184
	D2456,D2457,D2460-D2469	1SS226
	D2475,D2476,D2479-D2484,D2486	1SS226
	D2488	1SS226
	D2451-D2453,D2458,D2459,D2485	1SS352
	D2489	1SS352

COILS AND FILTERS

	L2457	ATF-163
	L2451,L2452	ATX1035

CAPACITORS

	C2454,C2462,C2467,C2473	CEHAT101M10
	C2476	CEHAT220M50
	C2478	CEHAT222M10
	C2453,C2455	CEHAT470M16
	C2481	CEHAT472M25
	C2451,C2452	CEHAT4R7M50
	C2459,C2464	CKSRYB102K50
	C2457,C2458,C2460,C2463,C2465	CKSRYB103K50
	C2468-C2472,C2474	CKSRYB103K50
	C2456	CKSRYB104K16
	C2461,C2480	CKSRYF104Z16

RESISTORS

	R2570,R2584 (22kΩ)	ACN7073
	R2475,R2476,R2481-R2487 (100Ω)	DCN1092
	R2496,R2498,R2499 (100Ω)	DCN1092
	R2502,R2510,R2525 (100Ω)	DCN1092
	R2524,R2554,R2567 (10kΩ)	DCN1094
	Other Resistors	RS1/16S□□□J

OTHERS

	X2451 CERAMIC RESONATOR	ASS1015
	J24513P HOUSING WIRE	ADX2499
	CN2457 L-PLUG (8P)	KM250MA8L
	CN2454 PLUG 50-P	AKM1126
	CN2451 L-PLUG (8P)	KM250MA8LR
	CN2458 PH CONNECTOR (12P)	S12B-PH-SM3
	CN2455 CONNECTOR (3P)	S3B-PH-SM3
	CN2453 CONNECTOR (3P)	S8B-PH-SM3

• 3D Y/C BLOCK

SEMICONDUCTORS

	IC7002	IS41C16256-35K
	IC7004	PQ3DZ13
	IC7001	UPD64082GF-3BA
	Q7002,Q7003,Q7009	2SA1162
	Q7001,Q7004-Q7008	2SC2712
	Q7010-Q7015	2SC2712

COILS

	L7017 (5.6µH)	ATH1107
	L7015,L7018,L7019	LCTA220J2520
	L7021	LCTA470J2520
	L7014	LCTA8R2J2520
	L7008,L7011	LFEA100J
	L7009,L7012	LFEA150J
	L7010	LFEA220J
	L7001	LFEA4R7J

CAPACITORS

	C7014	CCSQCH102J50
	C7051,C7062	CCSQCH121J50
	C7008	CCSQSL391J50
	C7057,C7063	CCSRCH100D50
	C7047,C7050	CCSRCH220J50
	C7002	CCSRCH270J50
	C7003,C7059	CCSRCH330J50
	C7058,C7064	CCSRCH560J50
	C7025,C7033,C7038,C7039,C7049	CEHAT101M10
	C7034,C7036	CEHAT102M6R3
	C7019,C7055	CEHAT1R0M50
	C7045	CEHAT470M16
	C7001,C7004-C7007,C7009-C7013	CKSRYB103K50
	C7015-C7018,C7020-C7022,C7032	CKSRYB103K50
	C7035,C7037,C7041-C7044,C7046	CKSRYB103K50
	C7048,C7056	CKSRYB103K50

RESISTORS

	Other Resistors	RS1/16S□□□J

OTHERS

	X7001 (20MHz)	ASS1140

• MAIN COLOR DECODER BLOCK

SEMICONDUCTORS

	IC7103	NJM2233BM
	IC7101	TA1270BF
	IC7102	TK15420M
	Q7123	2SA1162
	Q7104,Q7105,Q7111-Q7113	2SC2712
	Q7115,Q7116	2SC2712

COILS

	L7105	LCTA5R6J2520
	L7107	LFA5R6J

Mark	No.	Description	Part No.
CAPACITORS			
	C7140		CCSQCH120J50
	C7102		CCSQSL222J50
	C7125,C7126		CEAT100M50
	C7105		CEAT102M6R3
	C7135		CEAT220M50
	C7103,C7104		CEAT2R2M50
	C7128,C7130		CEAT470M16
	C7115		CEATR22M50
	C7143		CEHAT470M16
	C7107		CFHS223J16
	C7114		CKSQYB474K16
	C7117,C7120,C7127,C7129,C7144		CKSRYB103K50
	C7148		CKSRYB103K50
	C7106,C7108-C7113		CKSRYB104K16
RESISTORS			
	Other Resistors		RS1/16S□□□J
OTHERS			
	X7102	CERAMIC RESONATOR	ASS1019
	X7101	(3.58MHz)	ASS1138
• SUB COLOR DECODER BLOCK			
SEMICONDUCTORS			
	IC7303		NJM2233BM
	IC7300		TA1270BF
	IC7308		TA78M05F
	IC7307		TC90A45F
	IC7302,IC7304		TK15420M
	Q7316,Q7318,Q7319		2SA1162
	Q7303,Q7304,Q7309,Q7314,Q7315		2SC2712
	Q7317,Q7320,Q7326		2SC2712
	Q7307,Q7308,Q7310		2SC4213
COILS			
	L7306,L7307		LFA120J
	L7302		LFEA101J
	L7303		LFEA220J
CAPACITORS			
	C7340		CCSQCH120J50
	C7355,C7357		CCSQCH181J50
	C7301		CCSQSL222J50
	C7356,C7372		CCSRCH330J50
	C7329,C7330		CEAT100M50
	C7308,C7309		CEAT101M10
	C7358		CEAT1R0M50
	C7337-C7339		CEAT220M50
	C7302,C7303		CEAT2R2M50
	C7304,C7349,C7351		CEAT470M10
	C7332,C7335,C7342		CEAT470M16
	C7300		CEATR22M50
	C7307		CFHS223J16
	C7317		CKSQYB474K16
	C7305,C7310,C7319,C7323,C7327		CKSRYB103K50
	C7331,C7333,C7348,C7350		CKSRYB103K50
	C7352-C7354,C7366-C7369,C7371		CKSRYB103K50
	C7306,C7311-C7316		CKSRYB104K16

Mark	No.	Description	Part No.
RESISTORS			
	All Resistors		RS1/16S□□□J
OTHERS			
	X7301	CERAMIC RESONATOR	ASS1019
	X7300	(3.58MHz)	ASS1138
• TWIN-P BLOCK			
SEMICONDUCTORS			
	IC7703		CM0010AF
	IC7704		KIA431F
	IC7702		LC32V4265JL-25S
	IC7503		MC14053BF
	IC7701		PQ3DZ13
	IC7502		TK15420M
	Q7501,Q7504,Q7506		2SA1162
	Q7507-Q7525,Q7531		2SC2712
COILS AND FILTERS			
	F7701,F7703		ATF1189
	L7707,L7708		LCTA8R2J2520
	L7506		LFA5R6J
	L7504		LFEA100J
	L7505		LFEA220J
	L7705,L7706		QTL1013
CAPACITORS			
	C7520,C7521,C7523,C7524		CCSRCH101J50
	C7526,C7527		CCSRCH101J50
	C7550		CCSRCH180J50
	C7532,C7535,C7551,C7552		CCSRCH330J50
	C7512		CCSRCH680J50
	C7522,C7725-C7730,C7760		CEAT100M50
	C7515,C7706,C7755		CEAT101M10
	C7511,C7704,C7705		CEAT221M10
	C7505,C7506,C7548,C7716,C7734		CEAT470M10
	C7525		CEHAT100M50
	C7529		CEHAT470M16
	C7745-C7753,C7761-C7763,C7769		CKSQYF105Z16
	C7772		CKSQYF105Z16
	C7754,C7765		CKSQYF224Z25
	C7502,C7503,C7507,C7514,C7528		CKSRYB103K50
	C7701-C7703,C7707-C7715		CKSRYB103K50
	C7717-C7722,C7731,C7733		CKSRYB103K50
	C7735-C7744,C7766		CKSRYB103K50
	C7724,C7767,C7768,C7770,C7771		CKSRYB104K16
	C7756,C7758		CKSRYB152K50
	C7764		CKSRYF473Z50
RESISTORS			
	R7710-R7713	(22kΩ)	ACN7073
	R7714-R7720,R7753	(100Ω)	DCN1092
	R7730		RS1/16S1002F
	R7729		RS1/16S1502F
	Other Resistors		RS1/16S□□□J
OTHERS			
	CN7501	PLUG 44-P	AKM1155

Mark	No.	Description	Part No.
• COMPONENT BLOCK			
SEMICONDUCTORS			
	IC6305		CXA1315M
	IC6302-IC6304		TC74HC4053AF
	Q6301,Q6303,Q6304		2SA1162
	Q6306,Q6308,Q6310		2SA1162
	Q6316-Q6318,Q6322,Q6324		2SA1162
	Q6325,Q6361,Q6363		2SA1162
	Q6328-Q6360,Q6362		2SC2712
	D6301-D6306,D6316-D6320		1SS226
	D6310,D6313		1SS352
COIL			
	L6302		LFEA220J
CAPACITORS			
	C6373,C6374		CCSQCH470J50
	C6325,C6348		CEAT100M50
	C6301-C6306,C6368-C6370		CEAT220M50
	C6332,C6339,C6355,C6357		CEAT470M16
	C6363-C6365		CEAT470M16
	C6326,C6349		CEAT4R7M50
	C6307,C6311,C6321,C6328		CKSRYB103K50
	C6330,C6331,C6333,C6335-C6338		CKSRYB103K50
	C6340,C6342-C6345,C6351,C6356		CKSRYB103K50
	C6358-C6362,C6366,C6367		CKSRYB103K50
RESISTORS			
	Other Resistors		RS1/16S□□□J

B AV I/O ASSY

SEMICONDUCTORS			
	IC6001		CXA2069Q
	IC6201,IC6202		MC14066BF
	Q6004,Q6012,Q6014,Q6015,Q6019		2SA1162
	Q6022,Q6024,Q6025,Q6034		2SA1162
	Q6036-Q6038,Q6201,Q6206,Q6212		2SA1162
	Q6214,Q6216-Q6218		2SA1162
	Q6001-Q6003,Q6005-Q6011,Q6013		2SC2712
	Q6016-Q6018,Q6020,Q6021,Q6023		2SC2712
	Q6027-Q6033,Q6035,Q6039-Q6048		2SC2712
	Q6202-Q6204		2SC2712
	Q6205,Q6207-Q6211,Q6213,Q6215		2SC2712
	D6040,D6041,D6207		1SS184
	D6001-D6022,D6024,D6027-D6029		1SS226
	D6032,D6034,D6036,D6208-D6212		1SS226
	D6023,D6030,D6031,D6037-D6039		1SS352
	D6201-D6203,D6213		1SS352
	D6214		UDZS6.2B
	D6204		RD6.8MB
CAPACITORS			
	C6006,C6049,C6052,C6068,C6081		CEV100M16
	C6086		CEV100M16
	C6047		CEV101M6R3
	C6073,C6074		CEV102M6R3
	C6013,C6014,C6026,C6027		CEV1R0M50
	C6031,C6032,C6036,C6037		CEV1R0M50
	C6041-C6043,C6065,C6078,C6209		CEV1R0M50
	C6015-C6017,C6024,C6028,C6029		CEV220M16
	C6033,C6034,C6051,C6064,C6070		CEV220M16
	C6072,C6083,C6088		CEV220M16
	C6204		CEV470M6R3
	C6001,C6004,C6018,C6020,C6045		CEV470M16
	C6059-C6061,C6085,C6208,C6210		CEV470M16
	C6214,C6216		CEV470M16
	C6007,C6050,C6053,C6069,C6082		CEV4R7M35
	C6087		CEV4R7M35
	C6046		CEVNP470M6R3
	C6077		CEVNPR47M50
	C6067		CEVR47M50
	C6002,C6003,C6009-C6012		CKSQYF105Z16
	C6090,C6091,C6212,C6213		CKSQYF105Z16
	C6075,C6076		CKSRYB332K50
	C6005,C6008,C6021-C6023		CKSRYF103Z50
	C6038-C6040,C6044,C6048		CKSRYF103Z50
	C6201,C6203		CKSRYF103Z50
	C6054-C6058,C6062,C6063,C6071		CKSRYF103Z50
	C6084,C6089,C6205-C6207,C6215		CKSRYF103Z50
	C6019,C6025,C6030,C6035		CKSRYF104Z16
	C6202		CKSQYF472Z50
RESISTORS			
	R6183		RD1/2LMF1R0J
	R6182		RD1/4LMF3R9J
	R6003,R6042,R6168,R6169		RS1/10S151J
	R6090,R6107		RS1/10S182J
	R6007,R6008,R6046,R6047		RS1/10S361J
	R6195-R6198,R6238,R6239		RS1/10S361J
	R6294,R6295		RS1/10S361J
	Other Resistors		RS1/16S□□□J
OTHERS			
	CN6001	PIN JACK (6P) WITH SIN	AKB1271
	CN6002	PIN JACK (6P) WITH SIN	AKB1272
	CN6003	PIN JACK (6P)	AKB1273
	CN6203	PIN JACK (6P)	AKB1274
	CN6205	PLUG 50-P	AKM1126
	JA6201,JA6206	JACK	AKN1071
	CN6006	L-PLUG (10P)	KM250MA10L
	CN6005	L-PLUG (11P)	KM250MA11L
	CN6007	PLUG 3-P	KM250MA3L
	CN6202	PLUG 3-P	KM250MA3LB
	CN6204	PLUG 3-P	KM250MA3LR

C BNC ASSY

OTHERS			
	8001	BNC SOCKET	AKX1046
	CN8002	PLUG 8-P	KM250MA8

D SR ASSY

CAPACITORS			
	C5072		CCSQCH121J50
	C5071		CEV101M6R3
RESISTORS			
	Other Resistors		RS1/16S□□□J

Mark	No.	Description	Part No.

OTHERS

	CN5071		KM250MA3B
	X5071	REMOTE RECEIVER UNIT	GP1U28X

E VIDEO ASSY

• VIDEO BLOCK

SEMICONDUCTORS

	IC5254	CXA1315P
	IC5251	TA1276AN
	IC5256	TC74HC4053AP
	IC5252	TC74HC4538AP
	Q5251-Q5255,Q5260-Q5264,Q5266	2SA933S
	Q5268,Q5270,Q5276,Q5277	2SA933S
	Q5285-Q5287,Q5290,Q5301	2SA933S
	Q5305,Q5306,Q5318,Q5323	2SA933S
	Q5331-Q5333,Q5341	2SA933S
	Q5257,Q5259,Q5265,Q5272-Q5275	2SC1740S
	Q5278-Q5281,Q5288,Q5289,Q5302	2SC1740S
	Q5307-Q5310,Q5312,Q5319,Q5320	2SC1740S
	Q5328-Q5330,Q5340,Q5342	2SC1740S
	Q5267,Q5269,Q5271	2SC2235
	D5251-D5283,D5293-D5297	1SS133
	D5308-D5310,D5314-D5319	1SS133
	D5329-D5338,D5340-D5347	1SS133
	D5349-D5362,D5364	1SS133
	D5298-D5306,D5320-D5328	MTZJ11
	D5284-D5292	S5688G

COILS

	L5251	LAU100J
	L5253	LAU1R0J
	L5252	LAU4R7J

CAPACITORS

	C5259	CCCCH271J50
	C5298,C5299	CCCCH7R0D50
	C5332	CCCSL150J50
	C5296	CCCSL151J50
	C5322,C5334	CCCSL180J50
	C5288	CCCSL220J50
	C5295	CCCSL2R0C50
	C5287	CCCSL560J50
	C5269,C5281,C5282,C5297,C5321	CEAT100M50
	C5336	CEAT100M50
	C5251,C5255,C5312,C5324,C5340	CEAT101M10
	C5309	CEAT101M16
	C5274,C5284	CEAT1R0M50
	C5301,C5331	CEAT220M50
	C5270	CEAT221M10
	C5319	CEAT221M16
	C5272,C5283	CEAT2R2M50
	C5292	CEAT470M16
	C5261	CEAT471M6R3
	C5285	CEAT4R7M50
	C5257,C5258,C5271,C5273	CEATR10M50
	C5286	CEATR47M50
	C5252-C5254,C5256,C5262,C5278	CKCYF103Z50
	C5293,C5294,C5310,C5311	CKCYF103Z50
	C5316-C5318,C5325,C5339,C5341	CKCYF103Z50

Mark	No.	Description	Part No.
	C5263-C5268,C5275-C5277		CQMA104J50
	C5323		CQPA103J2A
	C5300		CQPA223J2A
	C5260		CQPA271J2A

RESISTORS

	R5326,R5331,R5336	RD1/2PM100J
	R5285-R5287	RD1/2PM101J
	R5323,R5328,R5333	RD1/2PM821J
	R5317,R5319,R5321	RD1/2PM8R2J
	R5309	RN1/4PC1002F
	R5475	RN1/4PC1003F
	R5310	RN1/4PC1102F
	R5346,R5587	RN1/4PC1201F
	R5297	RN1/4PC1202F
	R5586	RN1/4PC1300F
	R5303	RN1/4PC1501F
	R5353	RN1/4PC1502F
	R5345	RN1/4PC1602F
	R5298	RN1/4PC2201F
	R5354	RN1/4PC2402F
	R5307	RN1/4PC2700F
	R5344	RN1/4PC2701F
	R5295,R5304,R5347,R5469,R5470	RN1/4PC3301F
	R5349	RN1/4PC3302F
	R5296	RN1/4PC3601F
	R5311,R5484	RN1/4PC4702F
	R5343	RN1/4PC5101F
	R5306,R5308	RN1/4PC5601F
	R5476	RN1/4PC6802F
	R5302,R5305	RN1/4PC7500F
	R5294,R5300	RN1/4PC8200F
	R5348	RN1/4PC9102F
	VR5251,VR5252	ACP1072
	Other Resistors	RD1/4PU□□□J

OTHERS

	CN5255	PLUG 11-P	KM250MA11
	CN5251	PLUG 15-P	KM250MA15
	CN5252	PLUG 3-P	KM250MA3

• VIDEO CONNECTOR BLOCK

SEMICONDUCTORS

	IC5602	PQ30RV11(A)
	IC5601	PQ3RF23
	Q5601,Q5602,Q5606-Q5608,Q5611	2SA933S
	Q5621,Q5622	2SA933S
	Q5603-Q5605,Q5609,Q5613-Q5620	2SC1740S
	D5601,D5603-D5605,D5608-D5620	1SS133

COILS

	L5601-L5603,L5605	ATH-059

CAPACITORS

	C5629-C5631	CCCSL150J50
	C5605	CCCSL330J50
	C5619	CEAT100M50
	C5601,C5602,C5622	CEAT101M10
	C5604	CEAT101M16
	C5610,C5612	CEAT102M16
	C5616,C5617	CEAT102M25
	C5607,C5608,C5623	CEAT222M10

Mark	No.	Description	Part No.
	C5613		CEAT471M16
	C5603,C5624-C5628		CKCYF103Z50

RESISTORS

	R5656,R5657	RD1/2PM152J
	R5661	RN1/4PC1001F
	R5644	RN1/4PC1502F
	R5711	RN1/4PC1801F
	R5643	RN1/4PC2701F
	R5702	RN1/4PC3001F
	R5629	RN1/4PC3301F
	R5627	RN1/4PC3601F
	R5645,R5646	RS2MMF1R0J
	R5663,R5712	RS3LMFR22J
	Other Resistors	RD1/4PU□□□J

OTHERS

	KN5601-KN5604	GROUND PLATE	ANK-142
	CN5601,CN5603,CN5604	SOCKET 50-P	AKP1161
	CN5602,CN5605	SOCKET 44-P	AKP1186
	CN5607	11P PLUG	KM200IA11
	CN5609	12P PLUG	KM200IA12
	CN5611	PLUG 4-P	KM250MA4
	CN5610	PLUG 6-P	KM250MA6
	CN5606	8P SOCKET	KP250NA8
	SCREW		PMZ30P100FZK

F RGB SW ASSY

SWITCH

	S5091	ASH1029

RESISTORS

	All Resistors	RS1/16S□□□J

OTHERS

	CN5092	15PD-SUB SOCKET	AKP1195
	CN5091	8P PLUG	KM250NA8L

G AUDIO ASSY

SEMICONDUCTORS

	IC1202	LA4280-P
	IC1203-IC1205	NJM4558MD
	IC1201	UPC1853CT-01
	Q1206	2SA1162
	Q1201-Q1203,Q1207,Q1210-Q1213	2SC2712
	Q1208,Q1209	2SC4213
	D1205	1SS226

CAPACITORS

	C1239 (470µF/10V)	ACH1334
	C1242,C1243	CCSQCH151J50
	C1245	CEHAT102M50
	C1228,C1229	CEHV2R2M50
	C1204	CEV1R0M50
	C1205,C1214,C1215,C1237	CEV220M16
	C1246,C1247	CEV220M16
	C1234	CEV221M35
	C1202,C1203	CEV2R2M50
	C1235,C1236	CEV330M25
	C1206,C1207	CEV3R3M50
	C1208,C1212,C1263,C1267	CEV470M16
	C1240,C1241	CEVR47M50
	C1218,C1221	CFHS223J16
	C1210,C1211,C1244	CFHSP104J16
	C1201	CFHSP823J16
	C1219	CFHSQ102J50
	C1217	CFHSQ222J50
	C1223	CFHSQ681J50
	C1220,C1222	CFHSQ682J16
	C1216,C1230,C1231,C1233	CFTYA104J50
	C1250,C1256	CKSQYB183K50
	C1264,C1265	CKSRYB102K50
	C1248,C1254	CKSRYB152K50
	C1251,C1257	CKSRYB332K50
	C1249,C1255	CKSRYB682K50
	C1209,C1213,C1226,C1227,C1232	CKSRYF103Z50
	C1262,C1266	CKSRYF103Z50

RESISTORS

	R1228,R1229	RD1/4LMF2R2J
	R1291	RD1/4LMF3R9J
	R1245	RS1/2S561J
	Other Resistors	RS1/16S□□□J

OTHERS

	1201	ISOLATION SHEET	AEB1359
	1202	PLATE SPRING	ANG1569
	1201	SCREW	BBZ30P080FCU
	CN1201	11P SOCKET	KP200IA11L
	CN1202	12P SOCKET	KP200IA12L

H SUB VIDEO SERVICE ASSY

• FLESH TONE BLOCK

SEMICONDUCTORS

	IC3001	AN5344FBP
	IC3002	TK15420M
	Q3002,Q3003,Q3018	2SA1162
	Q3001,Q3008-Q3013,Q3015	2SC2712
	Q3019-Q3027,Q3029-Q3040	2SC2712
	D3001	1SS184

COILS AND FILTERS

	L3016	ATH1108
	DL3002	ATN1040
	L3009,L3012,L3014	LFA1R2J
	L3001,L3003,L3005,L3007,L3010	LFA5R6J
	L3008,L3011,L3013	LFEA2R2J
	L3002,L3004,L3006	LFEA4R7J

CAPACITORS

	C3049,C3050	CCSRCH100D50
	C3019,C3042,C3052,C3057,C3062	CCSRCH101J50
	C3048	CCSRCH180J50
	C3053,C3058,C3063	CCSRCH220J50
	C3034,C3039,C3043,C3046	CCSRCH330J50
	C3033,C3038,C3045	CCSRCH331J50
	C3032,C3037,C3044	CCSRCH470J50
	C3051,C3056,C3061	CCSRCH560J50

Mark	No.	Description	Part No.
	C3024		CEANP2R2M50
	C3007,C3008		CEANPR33M50
	C3020		CEAT101M16
	C3014		CEAT1R0M50
	C3009,C3017		CEAT2R2M50
	C3005,C3006,C3028,C3040,C3054		CEAT470M16
	C3059		CEAT470M16
	C3001,C3002		CEATR33M50
	C3015		CEATR47M50
	C3010,C3011		CKSQYF105Z16
	C3022		CKSRYB102K50
	C3013,C3016		CKSRYF103Z50
	C3003,C3004,C3021,C3025,C3027		CKSRYF104Z16
	C3035,C3036,C3041,C3047,C3055		CKSRYF104Z16
	C3060,C3066		CKSRYF104Z16
	C3012		CQMBA103J50

RESISTORS

	R3150	RS1/16S1001F
	R3052	RS1/16S1002F
	R3118	RS1/16S1200F
	R3083,R3160,R3172	RS1/16S1201F
	R3117	RS1/16S1500F
	R3068,R3119,R3120,R3125,R3131	RS1/16S1501F
	R3142,R3159,R3171	RS1/16S1501F
	R3057	RS1/16S1802F
	R3161,R3173	RS1/16S2000F
	R3143	RS1/16S3300F
	R3063	RS1/16S3600F
	R3132	RS1/16S5100F
	R3121	RS1/16S6800F
	VR3003 (1kΩ)	ACP1089
	VR3004 (4.7kΩ)	ACP1091
	Other Resistors	RS1/16S□□□J

OTHERS

	CN3002	PLUG 50-P	AKM1126
	CN3001	PLUG 44-P	AKM1155

• I/P BLOCK

SEMICONDUCTORS

	IC3201	CXA3106Q
	IC3203	CXD2303AQ
	IC3801	HD64F3067RF20
	IC3601,IC3604	MS82V16520-8GA
	IC3401	PE5066A
	IC3501	PE5067A
	IC3602	SDA9280
	IC3206	TA78M05F
	IC3205	TC74HC126AF
	IC3202	TC74HC4053AF
	IC3208	TC74HC4538AF
	IC3207	TC74HCT04AF
	IC3204	TC74LCX541FT
	IC3802	TC7SET08FU
	Q3204-Q3209,Q3601-Q3603,Q3607	2SA1162
	Q3609,Q3615	2SA1162
	Q3201-Q3203,Q3213,Q3604-Q3606	2SC2712
	Q3608,Q3610-Q3614	2SC2712
	D3201	1SS352

Mark	No.	Description	Part No.

COILS AND FILTERS

	F3202,F3203,F3401,F3801	ATF1194
	L3201-L3207	LCTA8R2J2520
	L3601,L3603,L3606	LFA1R2J
	L3602,L3604,L3607	LFEA2R2J
	L3208	QTL1013

CAPACITORS

	C3205,C3207 (0.47µF/16V)	ACE1130
	C3653	CCSRCH100D50
	C3204,C3254,C3256-C3258,C3624	CCSRCH101J50
	C3650,C3660	CCSRCH101J50
	C3252,C3260	CCSRCH102J50
	C3654,C3656	CCSRCH180J50
	C3236,C3237,C3253,C3416,C3520	CCSRCH220J50
	C3623,C3649,C3659,C3817	CCSRCH220J50
	C3642,C3651,C3661	CCSRCH560J50
	C3814,C3815	CCSRCH7R0D50
	C3662,C3663	CEAT220M50
	C3224,C3233,C3247,C3402,C3417	CEAT221M6R3
	C3518,C3601,C3617,C3801	CEAT221M6R3
	C3219,C3220,C3239,C3648,C3664	CEAT470M16
	C3646	CKSRYB152K50
	C3202	CKSRYB222K50
	C3201,C3210-C3218,C3221-C3223	CKSRYF104Z16
	C3225-C3232,C3234,C3238,C3240	CKSRYF104Z16
	C3242,C3243,C3246,C3248-C3251	CKSRYF104Z16
	C3255,C3259,C3262,C3276	CKSRYF104Z16
	C3403-C3415,C3502-C3505	CKSRYF104Z16
	C3507-C3517,C3600,C3602-C3614	CKSRYF104Z16
	C3616,C3618-C3622,C3625-C3636	CKSRYF104Z16
	C3638-C3641,C3643-C3645,C3647	CKSRYF104Z16
	C3655,C3658,C3803-C3805,C3816	CKSRYF104Z16
	C3818	CKSRYF104Z16
	C3206,C3261	CKSRYF223Z50

RESISTORS

	R3521,R3522,R3801,R3808 (47Ω)	DCN1090
	R3821,R3826,R3831 (47Ω)	DCN1090
	R3809,R3810 (4.7kΩ)	DCN1100
	R3291	RS1/16S1001F
	R3607	RS1/16S1002F
	R3633	RS1/16S1302F
	R3606,R3635,R3637,R3638	RS1/16S1500F
	R3659,R3673,R3679,R3685,R3692	RS1/16S1501F
	R3697	RS1/16S1501F
	R3207,R3290	RS1/16S1601F
	R3281	RS1/16S2401F
	R3206	RS1/16S3301F
	R3644	RS1/16S6801F
	R3691	RS1/16S8200F
	R3280	RS1/16S8201F
	R3672,R3684	RS1/16S9100F
	Other Resistors	RS1/16S□□□J

OTHERS

	X3801	CERAMIC RESONATOR (20.0MHz)	ASS1147
	CN3802	PLUG 7-P	KM250MA7

Mark	No.	Description	Part No.

• CLAMP BLOCK

SEMICONDUCTORS

	IC4052	M52036SP
	IC4051	TC74HC4053AF
	IC4053,IC4055	TC74HC4066AF
	IC4054,IC4056	TC74HC4538AF
	Q4057,Q4058,Q4062-Q4064	2SA1162
	Q4071-Q4072,Q4078,Q4081,Q4087	2SA1162
	Q4089-Q4091,Q4096	2SA1162
	Q4051-Q4056,Q4059-Q4061	2SC2712
	Q4065-Q4070,Q4075-Q4077	2SC2712
	Q4079,Q4080,Q4083-Q4086,Q4088	2SC2712
	Q4092-Q4095,Q4097,Q4098	2SC2712
	Q4102,Q4103	2SC2712
	Q4082	2SK209
	D4056,D4057,D4059,D4060	1SS226
	D4052-D4054,D4058	1SS352

CAPACITORS

	C4062,C4064,C4098	CCSQCH561J50
	C4082	CCSRCH101J50
	C4067	CEAT100M50
	C4099	CEAT1R0M50
	C4054,C4056,C4057,C4059,C4065	CEAT470M16
	C4068,C4075,C4078,C4080,C4089	CEAT470M16
	C4092,C4093	CEAT470M16
	C4081,C4094-C4097	CEAT4R7M50
	C4063	CEATR10M50
	C4104	CFHSQ331J50
	C4103	CFHSQ332J16
	C4087,C4102	CFHSQ821J50
	C4060,C4086	CKSRYB472K50
	C4058,C4061,C4066,C4069,C4074	CKSRYF104Z16
	C4077,C4079,C4083,C4084,C4088	CKSRYF104Z16
	C4091	CKSRYF104Z16

RESISTORS

	R4193	RS1/16S1001F
	R4159	RS1/16S1002F
	R4147	RS1/16S1801F
	R4219	RS1/16S2001F
	R4161	RS1/16S2402F
	R4148,R4167	RS1/16S3902F
	R4162	RS1/16S4702F
	R4175	RS1/16S6802F
	R4166	RS1/16S6200F
	VR4051 (2.2kΩ)	ACP1090
	VR4052 (47kΩ)	ACP1094
	Other Resistors	RS1/16S□□□J

• SYNC BLOCK

SEMICONDUCTORS

	IC4801	HG62G010R29FB
	IC4802	TC74HC14AF
	IC4803	TC74HC4040AF
	IC4804	TLC2932IPW
	Q4801	2SC2712
	D4801,D4802	1SS352

Mark	No.	Description	Part No.

COILS

	L4801,L4802	QTL1013

CAPACITORS

	C4814	CCSRCH221J50
	C4804,C4808	CEAT101M16
	C4807,C4813	CKSRYB102K50
	C4801-C4803,C4805,C4806	CKSRYF104Z16
	C4809-C4812,C4815	CKSRYF104Z16

RESISTORS

	Other Resistors	RS1/16S□□□J

• SHARPNESS BLOCK

SEMICONDUCTORS

	IC4301	AN5395FBP
	IC4304	CXA1315M
	Q4301,Q4302,Q4306,Q4307,Q4319	2SA1162
	Q4328,Q4330	2SA1162
	Q4303-Q4305,Q4308-Q4311,Q4321	2SC2712
	Q4323,Q4325-Q4327,Q4331,Q4332	2SC2712

COILS AND FILTERS

	F4302	ATF1194
	DL4303	ATN1055
	L4310,L4312	LFA1R5J
	L4302,L4311	LFA5R6J
	L4301	LFA820J

CAPACITORS

	C4365-C4367	CCSRCH101J50
	C4369	CCSRCH270J50
	C4310	CCSRCH470J50
	C4302,C4347	CCSRCH560J50
	C4315	CEAT100M50
	C4348-C4350	CEAT101M16
	C4377	CEAT1R0M50
	C4345	CEAT470M16
	C4355-C4358	CKSQYB224K16
	C4323,C4324	CKSRYB102K50
	C4304-C4309,C4312,C4314,C4316	CKSRYF103Z50
	C4320,C4322,C4343,C4370	CKSRYF103Z50
	C4317,C4321,C4340,C4344,C4346	CKSRYF104Z16
	C4303,C4311,C4319,C4359	CQMBA103J50

RESISTORS

	R4444	DCN1092
	R4303	RS1/16S2001F
	R4322,R4514	RS1/16S3301F
	R4307	RS1/16S6800F
	Other Resistors	RS1/16S□□□J

• SUB UCOM BLOCK

SEMICONDUCTORS

	IC2204	PD0264AM
	IC2201	PD5718A
	IC2203	PST9146N
	IC2205	TC74HC157AF
	Q2202,Q2204,Q2205,Q2207,Q2208	2SA1162
	Q2201,Q2203,Q2206,Q2209,Q2210	2SC2712
	D2203,D2206,D2210,D2212	1SS226

Mark	No.	Description	Part No.
	D2215-D2234		1SS226
	D2204,D2205		RD6.8MB

COILS AND FILTERS

	F2201	ATF1194
	L2201	LFA5R6J

CAPACITORS

	C2206	CCSQCH561J50
	C2211	CCSRCH120J50
	C2205,C2241	CCSRCH221J50
	C2210	CCSRCH390J50
	C2207,C2208	CCSRCH5R0C50
	C2222,C2226,C2237,C2239	CEAT101M16
	C2234	CEAT1R0M50
	C2238	CEATR47M50
	C2224,C2228	CKSRYB102K50
	C2223	CKSRYF103Z50
	C2209,C2220,C2221,C2225,C2227	CKSRYF104Z16
	C2236	CKSRYF104Z16

RESISTORS

	R2385 (22kΩ)	ACN7073
	R2229,R2230,R2242,R2269,R2275 (100Ω)	DCN1092
	Other Resistors	RS1/16S□□□J

OTHERS

	CN2202 PLUG 6-P	KM250MA6L
	CN2204 52P IC SOCKET	AKH1023
	X2202 CERALOCK	ASS1156
	X2203 CERAMIC RESONATOR (26MHz)	ASS1157

• EQ BLOCK

SEMICONDUCTORS

	IC4001	AD8057ART
	Q4003,Q4005	2SA1162
	Q4001,Q4007	2SA1669
	Q4002,Q4004,Q4006,Q4008	2SC2712

CAPACITORS

	C4002-C4005	CEAT470M16
	C4001	CKSRYF104Z16

RESISTORS

	R4001,R4022	RS1/16S1001F
	R4003	RS1/16S1201F
	R4008,R4012	RS1/16S1202F
	R4004,R4010	RS1/16S2001F
	R4021	RS1/16S2002F
	R4002	RS1/16S2202F
	R4009	RS1/16S4701F
	Other Resistors	RS1/16S□□□J

Mark	No.	Description	Part No.

I DIGITAL CONV. ASSY

• DIGITAL CONVER BLOCK

SEMICONDUCTORS

	IC1410	24LC128(I)P
	IC1401	CM0006CF
	IC1420	M51952BML
	IC1411,IC1419	NJM4558MD
	IC1409	TC74HC14AF
	IC1421	TC74HC4053AF
	IC1402	TLC2932IPW
	IC1412-IC1418	UPC4570G2
	IC1403-IC1408	UPD6376GS
	Q1401	2SC2712
	Q1403	2SJ461
	D1409	1SS181
	D1401-D1407	1SS226

COILS AND FILTERS

	F1401-F1403	ATF1189
	L1402	ATH1046
	L1401,L1403,L1405,L1407,L1409	ATH1097
	L1411,L1413	ATH1097
	L1415-L1420,L1424,L1425	QTL1013
	L1428,L1429,L1432,L1433	QTL1013
	L1436,L1437	QTL1013

CAPACITORS

	C1401,C1405,C1421,C1425,C1426	CCSQCH100D50
	C1430,C1431,C1435,C1436	CCSQCH100D50
	C1440,C1441,C1445,C1446,C1450	CCSQCH100D50
	C1540,C1542,C1544,C1546	CCSQCH101J50
	C1434	CCSQCH181J50
	C1451	CCSQCH471J50
	C1539	CCSQSL220J50
	C1551	CEAT102M6R3
	C1415	CEV2R2M50
	C1406,C1408,C1411,C1413,C1429	CEV470M6R3
	C1458,C1461,C1467,C1470,C1473	CEV470M6R3
	C1475,C1483,C1485,C1497,C1498	CEV470M6R3
	C1500,C1505,C1506,C1508	CEV470M6R3
	C1510,C1511,C1515,C1516,C1518	CEV470M6R3
	C1520,C1521,C1525,C1526,C1530	CEV470M6R3
	C1532,C1535,C1536,C1538,C1541	CEV470M6R3
	C1543,C1545,C1548	CEV470M6R3
	C1453	CEVNP4R7M16
	C1456	CEVR22M50
	C1454	CFHSQ103J16
	C1402,C1422,C1427,C1432,C1437	CFHSQ471J50
	C1442,C1447	CFHSQ471J50
	C1403,C1423,C1428,C1433,C1438	CFHSQ472J16
	C1443,C1448	CFHSQ472J16
	C1452	CFHSQ821J50
	C1404,C1407,C1409,C1410,C1412	CKSRYF103Z50
	C1414,C1416-C1418,C1420,C1424	CKSRYF103Z50
	C1455,C1457,C1459,C1460,C1463	CKSRYF103Z50
	C1465,C1466,C1468,C1469	CKSRYF103Z50
	C1471,C1472,C1474,C1476	CKSRYF103Z50
	C1478,C1479,C1481,C1482,C1484	CKSRYF103Z50
	C1486,C1488,C1489,C1491,C1492	CKSRYF103Z50
	C1494,C1496,C1499,C1501,C1502	CKSRYF103Z50

Mark	No.	Description	Part No.
	C1504,C1507,C1509,C1512,C1514		CKSRYF103Z50
	C1517,C1519,C1522,C1524		CKSRYF103Z50
	C1527,C1528,C1534,C1537		CKSRYF103Z50
	C1549,C1550		CKSRYF103Z50
RESISTORS			
	R1404,R1412,R1416,R1419,R1424		RS1/16S1002F
	R1428,R1431,R1436,R1440		RS1/16S1002F
	R1454-R1456,R1519,R1521,R1523		RS1/16S1002F
	R1525,R1527,R1529		RS1/16S1002F
	R1520,R1522,R1524,R1526,R1528		RS1/16S2402F
	R1530		RS1/16S2402F
	R1401,R1514-R1518		RS1/16S4302F
	Other Resistors		RS1/16S□□□J
• U-CON BLOCK			
SEMICONDUCTORS			
	IC1652		PD5564
	IC1656		24LC08B(I)P
	IC1655		MC14066BF
	IC1653		PST9146N
	IC1654		TC74HC157AF
	IC1651		TC74HC4538AF
	Q1651		2SC2712
	Q1652		2SJ461
	D1677		1SS184
	D1651,D1654-D1657,D1661-D1665		1SS226
	D1667-D1670,D1673-D1676		1SS226
	D1652,D1666		RD6.8MB
COIL			
	L1651		ATC1037
CAPACITORS			
	C1659,C1660		CCSQCH150J50
	C1671		CCSQCH221J50
	C1655		CEV101M6R3
	C1672		CEV1R0M50
	C1652,C1661,C1665,C1669		CEV470M6R3
	C1654,C1673		CFHSQ561J50
	C1658,C1663,C1664		CKSRYB102K50
	C1667		CKSRYB561K50
	C1651,C1653,C1656,C1657,C1662		CKSRYF103Z50
	C1666,C1670,C1680		CKSRYF103Z50
	C1668		CKSRYF104Z16
RESISTORS			
	R1731		RD1/4LMF2R7J
	R1737		RD1/4PU472J
	R1655		RS1/16S3901F
	Other Resistors		RS1/16S□□□J
OTHERS			
	X1651	CERAMIC RESONATOR	ASS1015
	202,203	CABLE HOLDER (13P)	51063-1305
	CN1655	CONNECTOR 12-P	B12B-PH-SM3
	CN1654	CONNECTOR 8-P	B8B-PH-SM3
	CN1651	PLUG 10-P	KM250MA10
	CN1652	PLUG 6-P	KM250MA6
	CN1653	PLUG 7-P	KM250MA7

Mark	No.	Description	Part No.
J	**CONNECTOR ASSY**		
OTHERS			
	1801,1802	CABLE HOLDER	51063-1305
	J1801,J1802	JUMPER WIRE	D15A13-100-2651
	CN1803	10P SOCKET	KP200IA10L
	CN1804	16P SOCKET	KP200IA16L
K	**CONV.AMP ASSY**		
SEMICONDUCTORS			
	IC1002		CA0007AD
	IC1004,IC1005		M5220P
	IC1003		PA0053B
	IC901,IC903		STK392-110
	IC1001		TC4052BP
	Q902,Q905,Q908,Q909,Q917		2SA933S
	Q914		2SB950A
	Q901,Q903,Q906,Q907		2SC1740S
	Q910-Q912,Q915,Q916		2SC1740S
	Q904,Q918		2SC2878
	Q913		2SD1276A
	D1014,D1015,D907-D911		1SS133
	D921,D922,D924		1SS133
	D923		BR3371XJ30A
	D1001-D1013		RD12ESB
	D901-D906,D915-D920		S5688G
COILS			
	L901,L902		ATH1108
	L903,L904		ATX1008
	L1001		LAU220J
	L1002		LAU5R6J
CAPACITORS			
	C1001,C1022,C1023,C1025,C1041		CCCSL101J50
	C909,C911,C912		CCCSL151J50
	C917-C919,C934-C936		CCCSL220J50
	C905		CEANP101M25
	C953		CEAT100M50
	C1013-C1017,C1019,C1029,C1030		CEAT101M10
	C1035		CEAT101M10
	C906		CEAT101M25
	C1039		CEAT220M50
	C1036,C1037		CEAT330M16
	C1038		CEAT470M10
	C1004,C945		CEAT470M25
	C921,C922,C938,C939		CEHAT102M25
	C920,C923,C937		CEHAT102M35
	C952		CEHAT221M25
	C908		CEHAT221M35
	C949		CEHAT332M25
	C948		CEHAT332M35
	C940		CEHAT471M35
	C1040		CFTYA184J50
	C1028,C1034		CFTYA224J50
	C910,C913,C950		CKCYB102K50
	C924-C926,C941-C943		CKCYB331K50
	C914-C916,C931-C933		CKCYB681K50
	C1002,C1003,C1005-C1012,C1018		CKCYF103Z50

Mark	No.	Description	Part No.
	C1020,C1021,C1026,C1027		CKCYF103Z50
	C1031-C1033,C901-C904,C907		CKCYF103Z50
	C927-C930,C944,C946,C947		CKCYF103Z50
	C951,C954-C957		CKCYF103Z50
	RESISTORS		
	R933,R955		RD1/2MMF470J
	R934,R940-R942,R956		RS1MMF470J
	R922		RS1MMF562J
	R935,R936,R957,R958		RS1MMFR47J
	R927-R929,R978-R980		RS2MMF121J
	R985		RS2MMF1R2J
	R960,R961		RS2MMF1R5J
	R930,R931,R981-R983		RS2MMF221J
	R976,R977		RS2MMF2R2J
	R914,R988		RS2MMFR47J
	R937,R938,R959		RS3LMF1R5J
	R932		RS3LMF221J
	R998		RS3LMFR68J
	R939		RS3LMFR82J
	Other Resistors		RD1/4PU□□□J
	OTHERS		
	CN905	PLUG 10-P	KM200IA10
	CN904	PLUG 16-P	KM200IA16
	CN901	PLUG 6-P	KM250MA6
	CN903	PLUG 6-P	KM250MA6B
	CN902	PLUG 6-P	KM250MA6R
	903	SCREW	BBZ30P080FCU
	901	SCREW	PMB30P160FZK
	902	SCREW	PMZ30P100FZK

L DEFLECTION SERVICE ASSY

• H. DEF BLOCK

Mark	No.	Description	Part No.
	SEMICONDUCTORS		
	IC303		NJM4558DXP
⚠	IC301		TA8638N
	Q315,Q316		2SA1145
	Q302,Q306,Q311,Q313,Q319		2SA933S
	Q321,Q322,Q326		2SA933S
	Q301,Q304,Q305,Q307,Q310		2SC1740S
	Q312,Q318,Q320,Q327		2SC1740S
	Q314,Q317		2SC2705
	Q308		2SC3332
⚠	Q309		2SC5043
	Q324		2SC5197
	D302,D304,D345		10DF2
	D305-D312,D314,D322		1SS133
	D321		BR3371XJ30A
	D328,D329,D343		ERA22-02
	D303		ERB93-02L3
⚠	D316,D317		ERD07-15
	D315,D327		RD12ESB
	D344		RD5.1ESB1
	D313		S5688G
	COILS AND TRANSFORMERS		
	L307,L308		ATH-059
⚠	T302		ATK1144
⚠	T301		ATK1145
	L303-L306,L309		ATX1008
	L310		LTA152J

Mark	No.	Description	Part No.
	CAPACITORS		
⚠	C325 (100pF/2kV)		ACG-032
⚠	C324 (1µF/160V)		ACH-372
	C331,C335,C358		CCCSL101J50
	C336		CCCSL101K2H
	C326,C342		CCCSL470J50
	C304		CEANP2R2M50
	C334		CEHAQ1R0M2C
	C353		CEHAT100M2D
	C308,C337,C349,C355		CEHAT101M25
	C330		CEHAT101M50
	C359		CEHAT102M35
	C357		CEHAT1R0M50
	C328		CEHAT221M25
	C332		CEHAT330M35
	C313		CEHAT331M16
	C351,C352,C360,C361		CEHAT471M16
	C309,C341,C343		CEHAT4R7M50
⚠	C320		CFPAB332H3C
⚠	C321		CFPAB472H3C
⚠	C319,C322		CFPMAB334J2G
	C323		CFTLA105J50
	C312		CFTLA224J50
	C329		CFTLA683J50
	C311		CKCYB102K50
	C303		CKCYB103K50
	C327		CKCYB561K50
	C315-C318,C333,C338-C340		CKCYF103Z50
	C350,C356		CKCYF103Z50
	C307		CQMA471J50
	C302		CQMA561J50
	C305		CQMA682J50
	C301		CQPA102J2A
	C314		CQPA333J2A
	C306		CQPA821J2A
	RESISTORS		
	R365		RD1/2PM153J
	R366		RD1/2PM223J
⚠	R395		RD1/4LMF100J
	R328		RN1/4PC1002F
	R419		RN1/4PC1202F
	R318		RN1/4PC1203F
	R302		RN1/4PC1303F
	R372		RN1/4PC1503F
	R327		RN1/4PC2702F
	R373,R421		RN1/4PC6801F
	R301		RN1/4PC8201F
	R338		RS1MMF100J
	R398		RS1MMF1R5J
	R336,R337,R339		RS2MMF1R0J
	R333		RS2MMF222J
	R358,R359		RS2MMF2R2J
	R355		RS2MMF390J
⚠	R392		RT5PZ561K
	VR301		VRTHS6VS222
	VR302		VRTHS6VS473
	Other Resistors		RD1/4PU□□□J
	OTHERS		
⚠	CN301-CN303	PLUG3-P	AKM1055
	CN304	PLUG 12-P	KM250MA12

Mark	No.	Description	Part No.
	CN305	PLUG 13-P	KM250MA13
	CN309	PLUG 4-P	KM250MA4
	CN307	PLUG 5-P	KM250MA5
	CN308	PLUG 6-P	KM250MA6
	CN306	PLUG 6-P	KM250MA6R
	301	ISOLATION SHEET	AEB1358
	305	SCREW	BBZ30P080FCU
	304	SCREW	PMB30P160FZK

• HV BLOCK

SEMICONDUCTORS

	IC601	NJM4558DXP
	Q604,Q605	2SA1145
	Q607,Q608	2SA933S
×	Q751	2SA933S
	Q602,Q614,Q752	2SC1740S
	Q603,Q606	2SC2705
	Q601	2SC3332
	Q609	2SC3468
⚠	Q612	2SC5143
	Q613	2SC5197
	Q610	2SD1276A
⚠	Q753,Q754	2SC4686A
	D601	10DF2
	D603,D608,D609,D611	1SS133
	D614,D615,D621,D625	1SS133
⚠	D622,D623	2NU41
	D610	ERA22-02
	D613	ERB06-15
	D602	ERB93-02L3
	D604-D607	RD12ESB
	D624	RD5.1ESB1
	D612	RD7.5ESB2
	D627	RD9.1ESB1
	D751-D757	1SS133

COILS AND FILTERS

⚠×	T601	ATK1136
⚠	T602	ATK1144
	L601-L603	ATX1008
	L605	LTA152J
	SG751	AEX1024

CAPACITORS

	C636 (1µF/160V)	ACH-372
⚠	C604 (10µF/160V)	ACH1117
	C606	CCCSL101J50
	C612	CCCSL101K2H
	C616	CEHAT100M2D
	C619,C621	CEHAT100M50
	C608	CEHAT101M25
	C605	CEHAT101M50
	C633	CEHAT1R0M50
	C620	CEHAT220M2D
	C635	CEHAT220M50
	C618	CEHAT220M63
	C624,C625	CEHAT221M25
	C613	CEHAT330M35
	C623	CEHAT470M25
	C634	CEHAT4R7M2E
⚠	C601,C602	CFPAB182H3C
	C603	CFTLA105J50

Mark	No.	Description	Part No.
	C607		CKCYB222K50
	C628		CKCYB332K2H
	C611		CKCYB561K50
	C627		CKCYB682K50
	C637		CKCYE103P2H
	C615		CKCYE222P2H
	C609,C610,C614,C617,C622		CKCYF103Z50
	C626,C629		CKCYF103Z50
	C754,C755 (4700pF/2kV)		ACG1028
	C752		CEHAT100M50
	C751		CEHAT470M25
	C753		CKCYF103Z50

RESISTORS

	R661 (27Ω)	ACN1136
	R631	RD1/2PM122J
	R648	RD1/2PM154J
	R618,R649	RD1/2PM223J
	R628	RD1/2PM333J
	R617	RD1/2PM563J
⚠	R634	RD1/4LMF100J
	R635	RD1/4MUF100J
⚠	R629,R630	RN1/2PC3902F
	R646,R650	RN1/4PC1003F
×	R645	RN1/4PC1003F
×	R639	RN1/4PC1202F
×	R640	RN1/4PC6801F
×	R644	RN1/4PC7502F
	R647	RN1/4PC8201F
	R604	RS1MMF100
	R658,R659	RS2MMF101J
	R602,R603	RS2MMF1R0J
	R621,R622	RS2MMF1R8J
	R601	RS2MMF222J
	R660	RS2MMFR56J
×	VR601	VRTHS6VS102
	VR603	VRTHS6VS223
×	VR602	VRTHS6VS473
	R769	ACN1011
	R770,R772-R776	RD1/2PM114J
	R771,R777-R781	RD1/2PM184J
	R757-R768	RD1/2PM224J
	R753	RN1/4PC2202F
	R752	RN1/4PC3302F
	R783	RN1/4PC3601F
	R755	RN1/4PC4701F
	R754	RN1/4PC56R0F
	R782	RN1/4PC7501F
×	R637,R638	RD1/4PU102J
×	R642	RD1/4PU821J
×	R643	RD1/4PU822J
	Other Resistors	RD1/4PU□□□J

OTHERS

	J602	H.V. RETURN WIRE	ADX2486
	J601	1P LEAD WIRE	ADX2492
	J603	HV CABLE (400)	ADY1043
	CN751	PLUG 3-P	AKM1055
	601	ISOLATION SHEET	AEB1358
	602	NYLON BINDER	AEC-093
	607	SCREW	BBZ30P080FCU
	605	SCREW	PMB30P160FZK

Mark	No.	Description	Part No.
	604,606	SCREW	PMZ30P100FZK
	608	SCREW	VPZ40P120FMC
	752	SCREW	PMZ30P100FZK

• VM BLOCK

SEMICONDUCTORS

	Q804,Q806	2SA1145
	Q808	2SA1837
	Q801	2SA933S
	Q802	2SC1740S
	Q803,Q805,Q807	2SC2705
	Q809	2SC4793
	D801,D802	MTZJ39
	D803-D806	S5688G

CAPACITORS

	C802	CCCSL101J50
	C815	CCCSL221J50
	C806,C807	CEAT101M25
	C817	CEAT470M50
	C809,C818	CEHAT220M2D
	C810	CEHAT3R3M2C
	C814,C819	CKCYE103P2H
	C801,C803,C808	CKCYF103Z50
	C804,C805,C816	CKCYF473Z50
	C813	CQMA104K2E
	C811,C812	CQMA472K2E

RESISTORS

	R826	RD1/2MMF100J
	R815	RD1/2MMF332J
	R813,R814	RD1/2PM270J
	R801	RD1/2PM272J
	R823,R824	RD1/2PM2R2J
	R827,R828	RD1/4MUF560J
	R809,R810	RS1MMF472J
	R819-R821	RS2MMF271J
	R822,R825,R831	RS3LMF471J
	Other Resistors	RD1/4PU□□□J

OTHERS

	802	SCREW	PMZ30P100FZK
	CN801	PLUG 9-P	KM250MA9

M R CRT DRIVE ASSY

SEMICONDUCTORS

	IC5101	TDA6120QN2
	Q5101	2SC1740S
	D5108	MTZJ3.9B
	D5107	MTZJ5.6A
	D5101-D5106	S5688G

COILS AND FILTERS

	SG5101,SG5102	AEX1024
	L5102	LAU2R2J
	L5101	LAU3R3J
	L5103	LTA562J

Mark	No.	Description	Part No.

CAPACITORS

	C5108 (1000pF)	ACG1001
	C5107,C5114 (47µF/250V)	ACH1343
	C5103	CCCSL120J50
	C5101	CCCSL390J50
	C5102	CCCSL7R0D50
	C5110	CEAT101M25
	C5109	CEAT472M16
	C5111,C5113	CKCYE103P2H
	C5104,C5106	CKCYF103Z50

RESISTORS

	R5115 (47Ω)	ACN1129
	R5116 (220Ω)	ACN1131
	R5118 (470Ω)	ACN1133
	R5117	RD1/2LMF100J
	R5101	RS1MMF6R8J
	R5112-R5114	RS3LMF822J
	VR5101	VRTHS6VS222
	Other Resistors	RD1/4PU□□□J

OTHERS

	CN5104	CRT SOCKET	AKG1006
	5107,5108	SCREW	BBZ30P080FCU
	5103-5106	SCREW	BPZ30P100FZK
	CN5105	PLUG 3-P	KM250MA3
	CN5106	PLUG 3-P	KM250MA3R
	CN5102	PLUG 5-P	KM250MA5B
	CN5101	PLUG 5-P	KM250MA5R
	5101,5102	SCREW	PMB30P160FZK

N G CRT DRIVE ASSY

SEMICONDUCTORS

	IC5151	TDA6120QN2
	Q5151	2SC1740S
	D5158	MTZJ3.9B
	D5157	MTZJ5.6A
	D5151-D5156	S5688G

COILS AND FILTERS

	SG5151,SG5152	AEX1024
	L5152	LAU2R2J
	L5151	LAU3R3J
	L5153	LTA562J

CAPACITORS

	C5158 (1000pF)	ACG1001
	C5157,C5164 (47µF/250V)	ACH1343
	C5153	CCCSL120J50
	C5151	CCCSL560J50
	C5152	CCCSL7R0D50
	C5160	CEAT101M25
	C5159	CEAT472M16
	C5161,C5163	CKCYE103P2H
	C5154,C5156,C5165	CKCYF103Z50

RESISTORS

	R5164 (47Ω)	ACN1129
	R5165 (220Ω)	ACN1131
	R5168 (470Ω)	ACN1133
	R5167	RD1/2LMF100J
	R5151	RS1MMF6R8J

Mark	No.	Description	Part No.
	R5161-R5163		RS3LMF822J
	VR5151		VRTHS6VS222
	Other Resistors		RD1/4PU□□□J

OTHERS

	J5152	LEAD WITH HOUSING	ADX2493
	CN5154	CRT SOCKET	AKG1006
	5157,5158	SCREW	BBZ30P080FCU
	5153-5156	SCREW	BPZ30P100FZK
	CN5156	PLUG 3-P	KM250MA3
	CN5157	PLUG 3-P	KM250MA3B
	CN5151	PLUG 5-P	KM250MA5
	5151,5152	SCREW	PMB30P160FZK

O B CRT DRIVE ASSY

SEMICONDUCTORS

	IC5201	TDA6120QN2
	Q5201	2SC1740S
	D5208	MTZJ3.9B
	D5207	MTZJ5.6A
	D5201-D5206	S5688G

COILS AND FILTERS

	SG5201,SG5202	AEX1024
	L5202	LAU1R0J
	L5201	LAU4R7J
	L5203	LTA562J

CAPACITORS

	C5208 (1000pF)	ACG1001
	C5207,C5214 (47μF/250V)	ACH1343
	C5201-C5203	CCCSL220J50
	C5210	CEAT101M25
	C5209	CEAT472M16
	C5211,C5213	CKCYE103P2H
	C5204,C5206	CKCYF103Z50

RESISTORS

	R5214 (47Ω)	ACN1129
	R5215 (220Ω)	ACN1131
	R5218 (470Ω)	ACN1133
	R5217	RD1/2LMF100J
	R5201	RS1MMF6R8J
	R5211-R5213	RS3LMF822J
	VR5201	VRTHS6VS222
	Other Resistors	RD1/4PU□□□J

OTHERS

	J5203	LEAD WITH HOUSING	ADX2493
	CN5204	CRT SOCKET	AKG1006
	5207,5208	SCREW	BBZ30P080FCU
	5203-5206	SCREW	BPZ30P100FZK
	CN5206	PLUG 3-P	KM250MA3
	CN5207	PLUG 3-P	KM250MA3B
	CN5201	PLUG 5-P	KM250MA5B
	5201,5202	SCREW	PMB30P160FZK

Mark	No.	Description	Part No.

P POWER SUPPLY ASSY

SEMICONDUCTORS

⚠	IC101	AN8029
	IC102	ON3171
	IC103	PC817CD
	IC204	MC33167TV
	IC203	NJM79M05FA
	IC201,IC202	PQ30RV11(A)
	IC901	MIP0253SP
	IC902,IC903	ON3171
⚠	Q101	2SK1544
	Q206,Q207,Q210	2SA933S
	Q205,Q901-Q905,Q907	2SC1740S
	Q202	2SC2705
	Q201	2SD1276A
	Q906	2SA933S
	D102	10DF2
	D101	D15XB60H
	D105,D110	MA723
	D103	MTZJ24
	D104	MTZJ27B
	D111	RD12ESB
	D106-D109	RD5.1ESB
	D206,D207	10DF2
	D210-D213,D215-D219	1SS133
	D223,D224,D226,D227	1SS133
	D229,D230	1SS133
	D908,D910-D914	1SS133
	D201	D3L60
	D228	HZS4BLL
	D209	HZS6A1L
	D222	HZS6B1L
	D214	HZS6C2L
	D208	SF5SC3L
	D204	YG802C06R
	D202,D203,D205	YG911S2R
	D915	BR3371XJ30A
	D906,D907	D1NS4
	D905	ERB06-15
	D909	HZS2BLL
	D901	S1WB(A)60B

RELAYS

	RY101,RY102	ASR1049

COILS AND TRANSFORMERS

⚠	L103	ATF1183
	L101,L102	ATX1021
	L902	ATX1008
	L901	LAU2R2J
	L218	ATH-059
	L215,L216	ATH1046
	L213	ATH1102
	L219-L222	ATH1108
⚠	T101	ATK1135
⚠	T901	ATK1133

CAPACITORS

	C113,C114 (4700pF/250V)	ACE1105
⚠	C115,C121 (0.22μF/250V)	ACE1125
	C116,C117 (0.01μF/250V)	ACG-501

Mark	No.	Description	Part No.
	C125	(3300pF/2kV))	ACG1008
	C111,C112,C126	(4700pF/2kV)	ACG1028
	C101,C102	(820µF/200V)	ACH1148
	C107,C222,C229		CEHAT101M25
	C108		CEHAT1R0M50
	C110		CEHAT220M50
	C103		CKCYB561K50
	C109		CKCYF103Z50
	C104		CQMA182J50
	C106		CQMA473J50
	C105		CQMA822J50
	C242,C243	(4700pF/250V)	ACE1105
	C210	(100pF/2kV)	ACG-032
	C201	(560µF/160V)	ACH1146
	C205	(8200µF/25V)	ACH1304
	C215,C216		CCCSL101K2H
	C211-C214		CCCSL221K2H
	C209		CEHAT100M2A
	C208,C220,C234,C236,C241		CEHAT100M50
	C226		CEHAT102M16
	C231		CEHAT1R0M50
	C202		CEHAT222M50
	C245		CEHAT331M16
	C203,C204,C207		CEHAT332M35
	C235		CEHAT470M25
	C247		CEHAT472M10
	C218,C246		CFTLA104J50
	C251		CFTLA563J50
	C217		CKCYE103P2H
	C219,C223,C224,C227		CKCYF103Z50
	C228,C230,C237,C238		CKCYF103Z50
	C244		CKCYF473Z50
	C232		CQMA104J50
	C906	(0.01µF/250V)	ACE1138
	C905	(0.1µF/250V)	ACE1144
	C914,C915	(0.01µF/250V)	ACG-501
	C912		CEHAT100M50
	C909		CEHAT1R0M50
	C908		CEHAT331M10
	C907		CEHAT331M16
	C910,C911,C913		CEHAT470M25
	C901		CEHAT470M2D
	C902		CFTLA104J50
	C916		CQMA104J50

RESISTORS

R102,R901	(2.2Ω)	ACN1128
R120,R123	(2.2MΩ,1/2W)	RCN1080
R106		RD1/2MMF100J
R112		RD1/4MUF681J
R117		RS1MMF151J
R104,R105		RS1MMF333J
R103		RS1MMF473J
R109-R111		RS2MMFR22J
R121,R122		RT10PZ120K
R101		RT5PZ1R8K
R207		RN1/4PC1502F
R216		RN1/4PC1503F
R212,R213		RN1/4PC1603F
R208		RN1/4PC1801F
R209		RN1/4PC2701F
R204		RN1/4PC2702F
R205,R206		RN1/4PC3301F
R214		RN1/4PC3901F
R217		RN1/4PC6801F
R210		RS2MMF223J
R219,R249		RS2MMF2R2J
R201		RS2MMF472J
R246,R251		RS2MMF821J
R252		RS3LMF4R7J
R218,R247		RT10PZ100K
R248		RT7PZ8R2K
VR201		VRTHS6VS102
R903		RD1/4MUF103J
R906		RN1/4PC1501F
R907		RN1/4PC1801F
VR901		VRTHS6VS102
Other Resistors		RD1/4PU□□□J

OTHERS

⚠	FU101	FUSE (10A)	AEK1069
⚠	FU201	FUSE (4A)	REK1082
⚠	FU204	FUSE (5A)	REK1083
⚠	FU202,FU203	FUSE (6.3A)	REK1085
	8001	SPACER	AEB1243
	H101,H102	FUSE HOLDER	AKR1007
	H201-H208	FUSE HOLDER	AKR1003
	CN212	PLUG 3-P	KM250MA3
	CN901	PLUG 2-P	AKM1127
	CN101	PLUG 2-P	AKM1156
	CN205	PLUG 10-P	KM250MA10
	CN207	PLUG 12-P	KM250MA12
	CN206	PLUG 4-P	KM250MA4
	CN204	PLUG 6-P	KM250MA6
	8004	SCREW	BBZ30P080FCU
	8009	SCREW	BBZ30P080FZK
	8008	SCREW	ABZ30P100FMC
	8000	SCREW	PBZ30P100FMC
	8010	SCREW	PMB30P100FMC
	8003	SCREW	PMZ30P100FZK

Q POWER SW ASSY

SWITCH

S5081		ASG1084

OTHERS

CN5081	PLUG 2-P	AKM1127

R FRONT INPUT ASSY

SEMICONDUCTORS

Q5041,Q5042	2SC2712
D5041,D5042	RD15MB

CAPACITORS

C5043,C5044	CEV1R0M50
C5041	CEV470M16
C5042,C5045	CKSRYF103Z50

Mark	No.	Description	Part No.
RESISTORS			
	R5043		RD1/4LMF101J
	R5052,R5053		RS1/10S221J
	Other Resistors		RS1/16S□□□J
OTHERS			
	CN5042	PIN JACK (3P)	AKB1261
	CN5041	PLUG 13-P	KM250MA13

S FRONT CONTROL ASSY

SWITCHES			
	S5001-S5008		ASG1034
CAPACITORS			
	C5003		CEV101M6R3
	C5004,C5005		CKSRYF103Z50
RESISTORS			
	All Resistors		RS1/16S□□□J
OTHERS			
	J5001	7P HOUSING WIRE	ADX2500
	CN5001	PLUG 8-P	KM250MA8

T LED DPO ASSY

SEMICONDUCTORS			
	Q5001,Q5005		2SA1162
	Q5002		2SC2712
	D5002		1SS181
	D5007		AEL1177
	D5008		SLR-56PC(LMN)
	PC5001		P1241-09
CAPACITORS			
	C5001		CEV100M16
	C5002		CEV330M25
RESISTORS			
	R5001		RD1/2LMF820J
	R5006		RS1/10S332J
	R5004		RS1/2S821J
	VR5001		VRTS6VS473
	Other Resistors		RS1/16S□□□J
OTHERS			
	5001	DPO HOLDER	AMR2294